PRINCIPLES

OF

GREEK ETYMOLOGY

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Fifth Edition

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[redacted]

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BOOK III.

IRREGULAR REPRESENTATION OF SOUNDS.

In the second book 671[1] words and families of words are 407
quoted, in which we thought we could establish the regular representation of the Indo-Germanic sounds, by the corresponding Greek sounds, as it is stated on p. 82 ff. and in the table on p. 128 ff. As it is not unimportant to form a clear conception of the wide extent to which the rule holds good, before we pass on to consider the exceptions, we will begin our present task with a short retrospect. In these investigations, as well as elsewhere, numerical proportions contribute to the formation of more definite ideas. Though these can be only approximate, inasmuch as the separation of individual roots and stems rests upon no principle which can be very exactly defined, it is impossible to deny to them a certain value. But further, the greater part of the roots and words quoted serve not only as an instance of a single, but in the great majority of cases to establish a double or triple representation of sounds. For instance, rt. δακ (No. 9) has been quoted only under κ, but it may serve just as well as an example for δ and for α. Thus the 671 articles contain a considerably larger number of examples of the regular representation of sounds. If we pay no regard at all to the vowels and only consider the consonants, we get the following general result.

[1] To the number 619, with which the numbering closes, we have to add sixty articles, which, in order not to disturb the original numbering, are denoted by letters (15 b etc.); while on the other hand the number 73 has been omitted by an oversight, and seven articles have in subsequent editions been dropped or combined with others.

408 In addition to the 134 examples quoted for κ we may add from the remaining letters 11 total 145

to the 54	examples	quoted	for	γ	we may add	9	„	63
„ 42	„	„	χ	„	„	2	„	44
„ 52	„	„	τ	„	„	16	„	68
„ 54	„	„	δ	„	„	22	„	76
„ 29	„	„	θ	„	„	2	„	31
„ 69	„	„	π	„	„	37	„	106
„ 6	„	„	β	„	„	4	„	10
„ 23	„	„	φ	„	„	13	„	36

Of examples of the guttural *n* (γ) there are 7

to the 33	examples	quoted	for	ν	we may add	38	„	61
„ 37	„	„	μ	„	„	34	„	71
„ 38	„	„	ρ	„	„	126	„	164
„ 41	„	„	λ	„	„	86	„	127
„ 18	„	„	σ	„	„	63	„	81
„ 5	„	„	ξ	„	„	1	„	6
„ 14	„	„	ϝ	„	„	29[1]	„	43
„ 9	„	*spir. asp.* = *s*			„	16	„	25
„ 3	„	„	„	=*j*	„	2	„	5
		The grand total is therefore						1179

certainly a considerable number, especially as regard is paid here only to the agreement of the consonants in stem-syllables, while this is excluded of course in derivative or inflexional syllables, however clearly recognizable, and the case is the same with the agreement of the vowels. And as almost all the examples quoted give rise to a greater or less number of derived words which are not taken into calculation, we may estimate tolerably well how important a part of the Greek vocabulary follows the regular representation of sounds.

But the numbers here given have also another value: they give us a clear idea of the relative frequency of the several consonants. It is noteworthy that in stem-syllables the most common of the consonants which have been faithfully pre-

[1] The greatly diminished number of instances of ϝ, as compared with that given in former editions, is explained by the fact that I have now included only cases in which there is definite evidence or indications of this sound within the Greek language.

served are ρ, κ, λ, π, σ, μ, δ, τ, ν, γ, and that too in the order here given, while β can only be proved to have been original in ten examples. From this last fact, we are tempted to doubt whether the sound *b* existed before the time of the separation 409
of languages, and whether it did not possibly establish itself first in a later period of a severance, which only became complete by degrees. (Cp. Grassmann 'Ztschr.' xii. 122.) This is the reason why in the table on p. 82 a note of interrogation is appended to *b*, where it is given as an Indo-Germanic sound[1]. Also in examining the irregular transitions of sound, the several numerical proportions of the regular substitution will be of importance to us, that we may measure by the help of these the extent of the sporadic transitions. In etymology, which admits of so much doubt in different directions, we cannot afford to neglect the advantage supplied by definite numbers.

We do not, however, by any means intend to plunge any deeper into calculations of this kind, though they are not unimportant. This is rather the place, seeing that here we are on the point of passing from the rule to the exception, to enter generally into the question of the possibility of the exception, and, where we can, to find a principle for the deviations from the rule.

We may consider it as proved that language is on the whole ruled by fixed laws and that such laws especially and preeminently concern that department of language with which we have here to do, the world of sounds, which is but little affected by the capricious action of the self-conscious spirit. But on p. 23 we recognized as the fundamental direction of this change, the downward tendency, the diminution, or, as we thought we might best describe it, the 'weathering away' of sounds. For in fact it is very natural to compare these with rocks which are gradually diminished and wasted by atmospheric influences, and yet retain so stubbornly their core; the more so that by means of this figure we oppose an incorrect theory of growing and sprouting, which is justified for another depart-

[1] The *b* as an Indo-Germanic sound has found a champion in Bickell 'Ztschr.' xiv. 425. But even he can only point to a small number of words, in which it is probable that the *b* existed originally.

ment of the life of language. The sounds of language as such do not increase but diminish, they do not grow, but wear out, and get rubbed off, or, to express it otherwise, after the structure of a nation's language has been on all essential points established, in the course of time the nation allows more and more of the phonetic value of words to be lost. Not as though this contradicted the ineffaceable connexion, which we felt bound to assume between the sounds which are united to form
410 words and the conceptions denoted by them. But a conception, which at the first 'outbreak' of the word required a full sounding phonetic form, was often adequately denoted, after the conception had once been firmly established, by a weaker group of sounds, an abbreviation as it were, or shadow of the original. *Weakening* is therefore the main principle of all phonetic change which is not occasioned either by the contact of sounds one with another, or by the purposes of the structure of language (p. 52 ff.)[1]. And this principle comes out clearly

[1] Max Müller ('Lectures' ii. 176) uses for the phonetic phenomenon, which we call 'weathering away,' the expression 'phonetic decay,' and rightly regards as the cause of it a certain 'laziness of utterance or muscular relaxation.' But we can hardly follow him in believing it possible to distinguish from the phonetic changes, which thus arise, a second kind, which he denotes by the name of 'dialectic growth' or 'dialectic variation:' and still less can we assume that the source of this second phonetic change was an earlier, undefined 'pronunciation' of the sound. Indefiniteness of sound seems to me inconsistent with that forcible articulation which is especially characteristic of the oldest languages. Besides, dialectic differentiation never ceases. If the difference between the Skt. *ap* and the Lat. *aqua* were only to be explained by supposing that neither the guttural nor the labial was heard before the break-up of the primitive Indo-Germanic language, but something between the two, we should be obliged to assume likewise an undefined pronunciation for the Lat. *aqua*, inasmuch as we find *apa* replacing it again in Wallachian. Further, as a Teutonic *h* (Goth. *ahva*) corresponds to this *p* = *qu*, we should have to postulate a sound, fluctuating between *p*, *k*, and *h*. But where does any such sound exist? — A more hopeful task is rather that of referring all phonetic changes to one source. This very laziness of utterance, constantly increasing in the course of time, operated in different ways. And this difference we must try to explain from the nature of

in the regular representation of the Indo-Germanic sounds in 411
Greek. For at any rate the two kinds of extensive phonetic change, which we denoted on p. 89 as 'splitting of sounds' and 'loss of sound,' are, considered more closely, a wearing off, and confusion. There is no need to prove this in the case of loss of sound. No one can doubt that there has been a diminution of sound, if the Greeks replaced the primitive *vastu* (No. 206) afterwards by *ἄστυ*, with the loss of the digamma. But the splitting of the vowel is also a wearing off. *a* is the vowel, the production of which requires the clearest and sharpest articulation, as we can see from the fact that in very many languages it passes in the mouths of those who are less educated, and in consequence have less control over their organs of speech, sometimes into *o*, sometimes into *e*, the physical reason of the change lying in an altered position of the mouth. From this natural characteristic of the *a*, we may regard it as a rule that it never arises in Greek and Latin from any other vowel.

language. We may assume in this case three main kinds of motives: firstly, the influence of neighbouring sounds; secondly, the production of involuntary by-sounds, or parasitic sounds; and then thirdly, a more intellectual principle, the desire to distinguish words. — Ascoli, in his 'Studj Critici' ii. p. 450 (German trans. p. 362) discusses the view on which I have always laid much stress, that *weakening* is the principle of all unconscious phonetic change. He regards 'infinite restrictions' of this principle as requisite; and I am far from failing to perceive that these relations are now shown to be much more varied than twenty years ago, when I first stated this doctrine, and perhaps looked upon it as much too easy of general application. But when an investigator like Ascoli, who of all living scholars perhaps possesses the most comprehensive and delicate knowledge of the established phonetic changes, himself admits that 'adaptations' and 'lightenings' (*agevolamenti*) are main sources of these changes, I believe that his view does not differ in principle very materially from mine, and, ready as I am to learn from him on details, I see no reason to abandon the extraordinary advantage which lies in maintaining a definite direction in a field which is anyhow difficult.—Compare now Whitney's valuable and discriminating essay 'On the Principle of Economy as a Phonetic Force' (Trans. of the American Philol. Assn. 1877). The principle Whitney puts in the place of economy is *compatibility*, 'ready compatibility in the processes of rapid speaking.'

The rule maintains its validity, though this is certainly not without exceptions, even if really, as has been conjectured, the Locrian *α* of *ἀμφόταρος, πατάρα* and some other forms collected by Allen 'Stud.' iii. 219, arose from an earlier *ε* under the influence of the *ρ*. The splitting of the old Indo-Germanic *a* into *a*, *e*, *o*, therefore, otherwise regarded, amounts to this, that in a number of instances *a* is retained, in a number more it is 'weathered away,' sometimes to *e*, sometimes to *o*. Of course, this splitting secures peculiar advantages, especially to the two Graeco-Italic languages, in which it is most regularly carried out (p. 92), and is used by the spirit of language for the most significant and various distinctions[1]; so that weathering away, otherwise regarded, presents itself as beautifying and enriching language. Only from the stand-point, which we here occupy, this change falls under the fundamental principle of the weakening of sound. The same is seen at the first glance to be the case with many other changes and alterations. Certainly no one could deny that the Greek *υ* arose by weakening from the Indo-Germanic *u*; and hence that the Boeotians, who retained the *u*, have an advantage over the remaining Greeks in the retention of the more
412 vigorous sound, just as the majority of the Romance nations have over the French, who are in this respect to be compared to the Greeks. For there is no doubt that the pronunciation of the German *ü*, as it exists in its genuine form and fully brought out in the north of Germany, may be regarded as established for *υ*, at any rate during the most flourishing period of the Greek language: at a later time this sound unquestionably underwent a further thinning, until at last it entirely coincided with *i*. ('Elucidations of my Greek Grammar' p. 25.) But the sound *ü* arises from *u* by the tendency which the pure *u* shows to pass into *i*, the thinnest and lightest of the vowels, by the omission of the protrusion of the lips, needful, as physiologists show[2], to bring out the full *u*.

[1] Cp. my essay 'Comparative Philology in its relation to Classical Scholarship' [E. T.] p. 33. With regard to the attempt that has been made to regard the distinction of the hard vowels as older than the separation of the languages, I may refer to p. 93.

[2] Cp. Brücke 'Grundzüge der Physiologie und Systematik der

The weakening of *u* into *v* was the first instance in Greek of the appearance of that tendency, which has been constantly growing in the course of time, to give *i* a predominance over all vowels. Hence the change from *u* into *v* is the beginning of that itacism, which we find developed into such excessive monotony in modern Greek. (Cp. Heyse 'System der Sprachw.' p. 268.)

Among the specifically Greek transitions of sound already mentioned the change of an initial *s* into the spiritus asper was spoken of above. This transition is distinguished from those just discussed by the fact that it is not by any means universal. For, on the one hand, in ordinary Greek it is only found at the beginning of a word, and then always before vowels, and, on the other hand, it is not universally carried out even here. Sometimes the old σ is retained, either by the side of the spiritus asper: σῦς by the side of ὗς (No. 579), or without any such by-form: σάος (No. 570), σίαλον (No. 557), σῦριγξ (No. 519). But the number of stems, in which this is the case, is after all a very small one, compared with the many stems, which admit this change at the beginning before vowels. Of 28 stems with σ before a vowel, which have been discussed in the course of these investigations, the four just mentioned, and the traces of dialectic forms of the root ἑδ (No. 280) beginning with σ, are the only ones, in which the comparison of the cognate languages makes it probable that the sibilant originally stood immediately before the vowel. On the other hand there are eleven of them in which the loss of a consonant is probable (e.g. σίδηρος No. 293, σάλπιγξ No. 388, σιγή No. 572, cu No. 578), one in which we can show that σ comes from τ (σύ=τυ), and two in which we can prove that there has 413
been softening from a harder group of sounds (σύν from ξύν, σώχω from ψώχω). We must therefore regard it as the exception for σ to be retained before vowels, while the rule common to all Greek dialects is for it to pass into the aspirate. In the same way we were obliged to regard the change from the two other spirants *v* and *j* to the aspirate, as falling under regular

Sprachlaute' 2nd edit. (Wien 1876) p. 24: though here it is the converse change from *i* to *ü* which is described.

change of sound. Hence as this change of sound thus forms part of a still wider analogy, inasmuch as we may ascribe to the Greek language a disinclination to spirants as a characteristic peculiarity, so on the other hand we gain support for the change of *s* into an aspirate in the fact that this sibilant is regularly dropped between two vowels. For instance, it has long been recognized that we must assume the intermediate form *ἐ-ὀντ*, or, more clearly written, *eh-ont* as the step between the postulated participial stem *ἐσ-οντ*=Indo-G. *as-ant*, Skt. *s-ant*, Lat. *s-ent*, and the Homeric *ἐ-οντ*. In the later Laconian dialect, such an internal aspiration appeared in the place of the *σ* retained by the other Greeks. El. *ποήασσαι*= *ποιήσασθαι*, Lac. *Μῶά* for *Μῶσα*, *νικάὰρ* = *νικάσας*. Consequently the tendency of a sigma to change *before vowels* into the spiritus asper is one of the phonetic laws of Greek. This tendency recurs in the Persian family of speech, and in the Britannic branch of the Keltic languages[1]; some traces of it can be proved to exist in the Carinthian dialect of New High German (Kuhn 'Ztschr.' xii. 398); according to Max Müller ('Lectures' ii. 164) it is also found in some Polynesian languages; according to Ascoli 'Fonol.' 23 it occurs in the Italian dialect of Bergamo and in the French of Lothringen; and thus it is proved to be a tendency founded upon the nature of the human organs of speech, which evidently amounts to a weakening. For it needs no further argument to show that the rough breathing is a weaker sound, that it requires less force of articulation than the sigma. Our physiologists hardly regard *h* as a consonant, Sievers ('Grundzüge der Lautphysiologie' p. 78) calls the *h* of the Greeks 'a toneless breathed insertion.' Thus the law of 'weathering away' is preserved here too, and modern linguistic science, in maintaining the unqualified priority of the sibilant, as against earlier unscientific theories of 'the thickening of the aspirate' or of 'a variation between *s* and *h*,' has not merely the majority of languages, but reason too on its side. The simple

[1] In Irish *s* is preserved when initial before vowels; but in the middle of words between vowels it passes into an aspirate as regularly as in Greek.

fact that Latin, as compared with Greek, retains this *s*, would 414
be sufficient to refute false views as to its derivation from Greek.

So far we have found all the changes of sound which we have examined, agreeing with the general tendency, which has been pointed out. On the other hand this does not seem to be the case with certain other changes, which have been also already mentioned. The aspirates especially have to be taken into consideration here. We saw that χ regularly corresponds to an Indo-Germanic *gh*, φ to a *bh*, θ to a *dh*. To understand this change of sound, we have first to determine the actual sound of the Greek aspirates.

The characters χ, θ, φ denote for the later Greeks not aspirates, but spirants; and if Priscian i. p. 12 (Hertz) is right in stating the *only* difference ('hoc solum interest') between the Greek φ and the Latin *f* to be that the former was pronounced with closed lips ('fixis labris'), even in his time φ was a spirant, though not indeed like *f* and the modern Greek φ a labio-dental, but rather an interlabial spirant. On the other hand the Greeks of the oldest time denoted the sounds, afterwards expressed by Χ and Φ, by ΚΗ and ΠΗ, a fact for which it is sufficient to refer to the Melian and Theraean inscriptions quoted by Kirchhoff ('Studien z. Geschichte des gr. Alphabets' 3rd edit. p. 54). For Θ indeed we find no ΤΗ, but we have now evidence of a ΘΗ in an inscription from Thera (Weil 'Mittheil. des d. arch. Instituts in Athen' ii. p. 73). On a very old inscription from Gortyn the aspirates χ and φ are represented by κ and π (Kirchhoff *op. cit.* p. 63). In this oldest time the Greek aspirates were certainly explosive sounds with an immediately following aspiration. The occurrence also on old Attic inscriptions of ΧΣ for the later Ξ, ΦΣ for Ψ excludes all possibility, for the time at which this way of writing prevailed, that Χ and Φ were spirants. That the Greek aspirates were still really double sounds later than this in the classical period of Greek[1] 415

[1] The very careful discussion by Wilh. Schmitz 'De aspiratarum Graecarum Latinarumque pronuntiatione,' which appeared as a 'Programm' in 1863 and is now accessible in his 'Beiträge zur Sprach. und Litteraturkunde' (Leipzig 1877) p. 110 ff., is quite on the lines

is proved by the following considerations, which it would, I think, be difficult to set aside:

(1) the moveable nature of the breathing, which

(*a*) is easily detached from the explosive element: *πέ-φυ-κα* for *φε-φυ-κα*, *ἐ-τέ-θη-ν* for *ἐ-θέ-θην*, *τρέφ-ω* from rt. *θρεφ* (cp. p. 49), and thus leaves behind the hard explosive sound;

(*b*) but, though its position varies, does not do away with the feeling that forms like *θρέψω* and *τρέφω* belong to each other, and hence

(*c*) in the various dialects attaches itself to different explosives in the same word: Ion. *ἐνθαῦτα*, *ἐνθεῦτεν*, *κιθών*, by the side of the ordinary Gk. *ἐνταῦθα*, *ἐντεῦθεν*, *χιτών*;

(*d*) finally makes a tenuis, with which it is brought into immediate contact, into an aspirate: *ἀφ' οὗ* for *ἀπ' οὗ*, though in the popular language, regulated by no grammar, which is supplied us in the inscriptions, we find in this matter the most marked fluctuations between tenuis and aspirate, e.g. *ἀφεστάλκαμεν* and *ἀπεσταλμένη* on the same inscription (Keil 'Schedae epigraphicae' p. 11).

I doubt whether these phenomena are to be found in any language in the case of unmistakeable spirants. On the other hand, at any rate the first and second phenomena have their analogies in Sanskrit: *dá-dhā-mi* for *dha-dhā-mi*, *bhōt-sjāmi* by the side of *bŏdh-āmi*. If χ had the pronunciation *kh*, *κέ-χυ-ται* is to the rt. *χυ* quite as *κέ-κτη-μαι* is to the rt. *κτα*.

(2) The extremely common interchange of the tenues and aspirates on less carefully written inscriptions of a more private character, especially on vases, e.g. *Χάλχος*, *Χόλχις*, *Ἔχθωρ Εὔταχτος*, for which see O. Jahn 'Abhandl. der k. sächs. Ges. d. Wissensch. hist. phil. Cl.' Bd. iii. p. 739, K. Keil

of the same general conception. — Lepsius also shares my view. Cp. *inter alia* his essay on the Arabic sounds ('Verh. der Berl. Akad.' 1861), p. 105. Cp. Schleicher 'Comp[3].' 201, Leo Meyer 'Vergl. Gr.' i. 43, Brücke 'Grundzüge der Lautphysiologie[2]' p. 127. A differing view, now shared, I believe, by few, was developed by Arendt in Kuhn and Schleicher's 'Beiträge' ii. p. 283 ff. His objections have been well met by Wilh. von der Mühll 'Ueber die Aspiration der Tenues im Zend und Griechischen' Leipz. 1875 p. 15 ff.

'Philologus' xxiii. 259, and especially W. H. Roscher in his instructive dissertation 'De aspiratione vulgari apud Graecos' ('Stud.' i. 2, 63 ff., cp. Fleckeisen's 'Jahrb.' 1870 p. 449 ff). Also forms like *δεδόκχθαι* (Carl Curtius 'Inschriften von Samos' p. 27), *δκχος*, *πίτθος*, *σκύπφος* prove that the aspirates contained an explosive element. It is probable that in such cases the following breath adapted itself to the place of articulation of the explosive, and that therefore in these forms we have traces preserved to us of a sporadic transition of the aspirates into so-called 'affricates.'

(3) The manner in which barbarians, where they are brought before us speaking Greek, imitate the aspirates. The Scythian in Aristophanes 'Thesmoph.' 1001 ff. in *αἰτρίαν*, *πυλάξι*, the 416
Triballian in 'Aves' 1679 in *δρνιτο* substitute the tenuis for the aspirate.

(4) The manner in which the older popular Latin reproduces the Greek aspirates (Ritschl 'Monumenta epigraphica tria' p. 28). It is well known that here the aspirate is regularly represented by the corresponding tenuis. In the case of *θ*, to be sure, this does not say much, because the Romans had no dental spirant, which came near to the modern Greek *θ*. But still they had at their command *s*, which they used e.g. for the by no means identical Greek *ζ* (*sona* = *ζώνα*), and which certainly comes nearer to the sound of the English *th* than the pure *t* does. And yet they wrote *tesaurus*, *Corintus*, *tiasus*. In the same way they were by no means without a sound for *χ*, supposing this to have been already a spirant, which, though not adequate, still came very near to it. For it has been supposed with justice that in the breathing of the Latin *h* there was more friction against the palate, than in the Greek spiritus asper. But in no Greek word does *h* take the place of the Greek *χ*: at this time it is regularly *c*: *calx* = *χάλιξ*, *Nicomacus*, *Aciles*. The difference between the later pronunciation of *φ* and that of *f* consisted, as we saw, only in the fact that the former was an aspirate produced entirely by the lips, while the latter was produced between the lower lip and the upper row of teeth. The two sounds were therefore, if not the same, yet at any rate, very similar. But in the earlier period the place of *φ* was rarely

taken by *f* in Greek words, but far more commonly by *p*, which is much farther removed from a spirant: *Poino-s* = *Φοῖνιξ*, *Pilemo* = *Φιλήμων*, *Nicepor* (*Νικηφόρος*), *Sisupus*, *purpura* = *πορφυρᾶ*, or by *b*: *Burrus*, *Bruges* = *Πύρρος*, *Φρύγες*. On the contrary all these phenomena, (cp. the Index grammaticus to Mommsen's 'Corpus Inscr. Lat.' vol. i. and Schmitz 'Beitr.' 125) are completely intelligible, as soon as we assume for that period sounds, the first element of which was *k*, *t*, and *p*. — Indeed even at the time of Ulphilas, the sound of the Gk. χ at any rate does not seem to have been by any means that of the Germ. *ch*, for in Gothic it is very often represented by *k*: *drakma*, *Malkus* (Rumpelt i. 194), and in other cases, e.g. in the name *Christus*, it is preferred to express it by a special sign of its own; and yet the Gothic *h* in the groups, *hr*, *hl*, *hn* cannot in any case have been pronounced very differently from the assumed spirant, and therefore it would have been very natural to make use of this sign, if the sound of the χ had been that assumed by Arendt.

(5) The fact that χ in Semitic words very frequently represents the Hebrew *Kaph*, e. g. in *Μάλχος*, *χιτών*, while the Hebrew *cheth*, which in any case came very near to the
417 guttural spirant of the later time, is in earlier times not denoted by χ (A. Müller in Bezzenberger's 'Beitr.' i. 283).

(6) Though we must not lay much stress upon the evidence of ancient writers as to the pronunciation of their sounds in general, because of the indefiniteness and ambiguity of their descriptions, yet it is worth while noticing that Dionysius of Halicarnassus 'De comp. verb.' c. xiv. expressly speaks in the case of aspirates of the *προσθήκη τοῦ πνεύματος*.

(7) Modern Greek dialects[1] have often in the place of an

[1] The little known fact, established by Deffner ('Monatsb. d. Berl. Ak. d. Wiss.' 1875 p. 23 ff.), is of importance for the history of the aspirates, that the Tzakonian dialect has formed from the double consonants *κκ*, *ττ*, *ππ* new and genuine aspirates, just as after the loss of the old diphthongs new ones have originated in modern Greek by epenthesis. In particular cases even, as Deffner p. 180 assumes, the Tzak. *kh*, *ph* is the successor of an old χ, φ; *khrìzu* 'I wash' = *χρίω*, *ophaka* = *ὄμφαξ*. — Deffner tells me that the modern Greeks pronounce every *θ* after *σ*, χ, φ, *αυ*, *ευ*, like *τ*, and every χ in a like position like *κ*: e. g. *skizo* = *σχίζω*, *efkì* = *εὐχή*.

aspirate the corresponding tenuis (Mullach 'Vulgarsprache' p. 28, 94, Morosi 'Studi sui dialetti Greci della terra d'Otranto' p. 105, Deffner 'Stud.' iv. 237): ἔκω, στοκάζομαι, τεκνίτης in the dialect of Rhodes, τέλω = θέλω among the Asiatic Greeks, λευτερόνω = ἐλευθερόω in the Peloponnese, *tanató*, *termó* in the Greek colonies of Italy (Ascoli 'Lautl.' 133). It is most common to find στ in the place of the old σθ (ἐγνωρίστην, γραφόμαστε). Hence as early as in my review of Mullach ('Ztschr.' vi. 236), I argued that this circumstance was only to be explained from a pronunciation of θ, in which a hard explosive element was heard; and I still doubt whether in these words a spirant was exceptionally changed into a hard explosive, although this change is regarded as proved for the Modern Norse *t* as compared with th ONorse *th* (pronounced as in English).

Further we must follow Rud. v. Raumer and Rumpelt in representing the transition from the aspirate to the spirant as not sudden but gradual. Between the two lay probably that class of sounds, for which Rumpelt ('Deutsche Grammatik' i. 45) uses the suitable expression 'affricated' (*affricatae*). The affricated sounds still retained a fixed explosive element, which might afterwards again attain to exclusive acceptance; while it is only under very peculiar circumstances that a tenuis could ever have come from a spirant. Ebel also in his essay 'On the History of Sounds' ('Ztschr.' xiii. 265) thinks that we may justly find in sounds of this kind an important means of explanation for many of the phenomena connected with the aspirates, and is strongly of my opinion, that in the Greek aspirates a *k*, *t*, *p* were actually heard before a breathing.

Only one argument has really been brought against the 418
pronunciation which I have demonstrated, i. e. the difficulty of pronouncing χθ and φθ, supposing that here two actual aspirates were brought together. But the conclusion drawn from the difficulty of a combination of sounds,—estimated according to the usages of another language—is always most uncertain. For instance, if he were to measure by this standard, a German, not acquainted from personal familiarity with the Slavonic languages as they are spoken, would declare many a combination common enough in a Slave's mouth, e.g. Bohem.

prst, *krk*, utterly unpronounceable; and the same verdict would be passed upon a form like *months* by one ignorant of English. The characters and the sounds corresponding to them do not completely cover each other in any language; there is always a something left, not to be characterized and not to be described, from which many surprising groups of sounds are to be explained. In Greek itself there is no want of such problems, as, for instance, in the pronunciation of σσ and ττ, which certainly was not identical with that of a double σ or τ. Perhaps we have still preserved in the old form ἄπθιτος (C. I. No. 1) an indication that the Greeks did not then pronounce with the breathing the first of two aspirates so connected. Von der Mühll has at p. 21 ff. of his essay, cited in the note to p. 114, acutely stated the difficulties which stand in the way of the theory of the assimilation of the explosives before θ. If θ had the phonetic value of a *t* with a succeeding *h*, we cannot understand why the φ of the rt. γραφ changed to π before the *t* of γραπ-τό-ς while it survived intact before the *t* + *h* of ἐ-γράφ-θη-ν; and still less why the π of the rt. τυπ actually changed, before the same θ into the very aspirate which it was evidently found hard to pronounce before another explosive. We should expect *e-grap-thēn* like *grap-to-s*, *e-typ-thēn* like *typ-to-s*, and cannot understand how the aspiration which follows the *t* should have the power to produce aspiration *before* it. Mühll's notion, that the assimilation was here only one of written letters and not of spoken sounds, or that in other words *kth*, *pth* was spoken, but the χθ, φθ was written on the analogy of κτ, γδ, πτ, βδ, seems to me deserving of much consideration. In an Attic private inscription of the Roman period (C. I. G. 916, l. 4) we find in κατακθόνιος a counterpart to the above-quoted very old ἄπθιτος. The following grounds may further be alleged for this view. In the face of the disinclination shown by the Greeks to aspirates at the beginning of two consecutive syllables, it is very surprising that while the
419 simple aspirate in ἐ-τα-φη-ν requires the change of the preceding θ to τ, the double aspirate φθ in τε-θά-φθαι leaves the θ intact. This phonetic requirement becomes completely intelligible, directly we assume that what was spoken was

e-ta-phēn, but not *te-tha-phthai* but *te-tha-pthai*. My belief is then that no argument is to be drawn from grouped aspirates either against the value above assigned for sounds of this character. It seems to me rather to be an established fact that these Greek sounds had not completed their gradual transition into spirants, at any rate in the first centuries after Christ. The beginning of this corruption seems to have been made by the Laconians, though even they did not from the beginning—as Ahrens 'Dor.' 70 shows—substitute σ for θ. This Laconism evidently presupposes the pronunciation of θ after the manner of the English *th*[1].

Hence, if the Greek aspirates had, at any rate originally, the force of *k*, *t*, *p*, with an appended breathing, and if they originated from *gh*, *dh*, *bh*, it seems at the first sight, that there has really been, in this transition, rather a strengthening than a weakening. For the tenuis, inasmuch as a more energetic obstruction of the organs of voice concerned (Brücke 'Grundzüge der Physiologie d. Sprachlaute[2]' p. 74 f.), or according to Sievers ('Lautphysiol.' p. 65), greater 'intensity[2]' is required to bring it out than for the medial, must have a stronger sound unconditionally ascribed to it, than to the medial. We should thus be obliged to consider that the tenuis with a breathing added, must be stronger than the medial with a breathing added, and therefore with regard to this widely prevalent law of the Greek sound, there would be an exception to the general tendency of the language. We might even be tempted by this surprising circumstance to look about for another explanation of the facts. What if the Greek hard aspirates were more primitive than the soft aspirates of Sanskrit? In this case everything would appar-

[1] The question here discussed is treated thoroughly by Brücke, 'Grundz. d. Lautphys.[2]' 127 f., with special reference to Rud. v. Raumer. Brücke is inclined to assume a force of θ as a spirant at an early date for χθ, φθ.

[2] This is why Sievers denotes the tenuis as *fortis*, the medial as *lenis*. I prefer, instead of this Latin expression, to employ the tolerably equivalent and very familiar *hard* and *soft*. The 'resonance' (*tönen*) of the *chordae vocales* is according to Sievers and other enquirers no essential criterion of the soft sounds.

ently be regular; we might regard the softening of *kh*, *th*, *ph*, into *gh*, *dh*, *bh*, which we should then have to assume for
420 Sanskrit, simply as weakening. Such a view would really be in itself by no means absurd, and hence I have already taken it into serious consideration in my essay on 'The Aspirates of the Indo-Germanic languages' ('Ztschr.' ii. p. 323 ff.). This is a question which cannot be answered, as has often been attempted, from the few isolated facts which have casually presented themselves, but only with reference to the sum-total of the consonants in all the languages of our stock. Now if we survey these, we arrive, as I have shown more fully there, at the following facts. In the place of the Greek aspirate there appears, as we saw, in Sanskrit a medial aspirate: in the Persian languages a medial, or a soft spirant which has originated in it (Zd. *gh*, *zh*, *dh* according to Justi's way of writing them): in the Slavo-Lithuanian, Teutonic, and Keltic languages, a simple medial: in the Italian languages either the spirant *f*, which can be shown to be of later origin, as the representative of *bh* and *dh*, and the simple breathing *h*, or, especially in the middle of Latin words, here too the medial. In illustration it is sufficient here to refer to Nos. 167, 169, 172, 307, 309, 325, 402, 411, 417. Who can fail to see that these facts may be explained better from the existence of an original soft than a hard aspirate? If the hard aspirate had been a common possession of our stock before the separation of languages, we should necessarily have expected to find this, or at any rate the *k*, *t*, *p*, which come nearest to it, surviving elsewhere than in Greek. Now there are, it is true, four words, limited to Latin alone, in which *t* may be regarded with some probability as representing a Greek *θ*: these are the words *patior*, *lateo*, *puteo*, and *rutilus* which are certainly related by kinship to *παθεῖν*, *λαθεῖν*, *πύθειν*, *ἐρυθρός*. But even with these, as I have shown *op. cit.* 335, other explanations are possible; as we saw on p. 67, the *θ* in *παθεῖν* and *πύθειν* is secondary (cp. No. 383), and hence we may fairly assume that the shorter root was in Greek expanded by *θ*, in Latin by *t*. And as to *ἐρυθρός*, the immediate correlative of which occurs in Lat. *ruber*, Umbr. *rufru* (No. 306), the *t* of *ru-tilu-s* may properly

be regarded as a part of the suffix, like that of *fu-tili-s* or *fus-tili-s* (cp. p. 205 above). However, even supposing that in some words a Latin tenuis really corresponded to a Greek aspirated tenuis, it would be simpler to regard this as an isolated deviation, to be explained from a temporary preference for the hard explosive sound (which cannot be denied for 421
a certain period of the Italian languages, and especially for the Umbrian), than to build upon it conclusions as to the condition of sounds before the separation of languages. Indeed even an agreement of the two languages of Southern Europe on this point, if really established, though in any case it is limited to a few word-stems, would at most only make it probable, that before the separation of *these* two most closely related families from each other, a hard aspirate was in existence. For the much earlier period before the splitting up of the great stock into its main branches nothing would be thus proved. On these and similar grounds, I rejected, in the essay quoted, the assumption of original hard aspirates, i.e. of hard aspirates existing before the separation of languages, as the source of the corresponding soft sounds. Recently, however, this view has still been maintained by two distinguished scholars, by Sonne in his valuable essays ('Ztschr.' x.–xiv.) and by Kuhn. The latter puts together the reasons, which influence him to depart from the prevalent opinion, in 'Ztschr.' xi. 302 ff.; and although the greater part of what may be said in reply has already been brought forward by Grassmann 'Ztschr.' xii. p. 81 ff., I will not refrain from going briefly into Kuhn's reasons, especially as Grassmann does not expressly mention them. In a question of such importance it is worth while carefully examining the *pro* and the *contra*. The first argument, which Kuhn adduces on his side, runs thus: 'By assuming a transition from *gh, dh, bh* into *kh, th, ph,* we assume a strengthening of sound, whilst we see languages as a rule developing in the opposite course.' This argument loses all its force, so soon as we are able to show that another explanation of the transition in question is probable, as will be done presently. Besides we have already been obliged to admit (p. 410) that there are exceptions to this direction of phonetic change, on which, by the

way, I have myself laid especial stress. The problem is to explain these, for they cannot be altogether denied away. — 'Secondly, Greek shows only aspirate tenues, Gothic only *th*, hence no medial aspirates, while the consonantal system of Greek is in general nearer to that of the primitive language than that of Old Indian.' But the latter statement is true only with qualifications, and does not hold good e.g. at all of the spirants. As the Gothic *th* etymologically originated from *t*, this comes into the question still less. Further, even Greek, by the fact that in not a few cases, to be mentioned hereafter, unaspirated medials correspond to the aspirated medials of Sanskrit, points to an ante-Greek series of aspirated
422 medials. Grassmann justly lays great weight upon this. — 'Thirdly, Sanskrit shows both series' — aspirate tenues and medials — 'completely developed side by side.' And 'the aspirates *gh*, *dh*, *bh*, present in Sanskrit, do *not*, in the further developement of the language (in Prākrit and Pāli), appear in the form of *kh*, *th*, *ph*.' But from this nothing more follows than that the course, on which these secondary languages entered, was different from that which we see in a sister language on an entirely different soil. Elsewhere too Greek and Prākrit phonetic tendencies diverge completely. Besides, Grassmann (p. 102) points out at least two instances from Sanskrit, in which *dh* has been step by step displaced by *th*. There is also the same phenomenon in the language of the Gypsies, to which we shall recur. Hence this course of developement has not been altogether wanting in the Indian sphere. — Fourthly, 'we always see, where new aspirates are developed, that it is only the aspirate tenues which make their appearance.' This is true of Greek, in cases where χ, θ, φ come from κ, τ, π, and of Gothic. In Zend the *gh* and *dh* of later origin, in the place of *g* and *d*, and similarly in Middle and New Irish, where *bh* also arises out of *b*, they are not to be taken as actual aspirates, but as spirants. But even if no instance of newly formed soft aspirates could be proved, this would not disprove the existence of very ancient sounds of the kind. Hence the possibility that these sounds might have originated otherwise than by weakening from *kh* and *th*, is established. — Fifthly, 'several instances of *kh*, *th*, *ph* in

Sanskrit agree with Greek χ, θ, φ, and this partly in forms, e. g. in verbal terminations, which go back to the earliest formation of language. It would surely be very venturesome to assume here simply the play of chance.' But this is by no means necessary, as Grassmann has thoroughly proved. In certain words the Skt. aspirate tenuis has evidently originated from the medial. If *nakhá-s* 'nail' (No. 447) occurs by the side of Gk. ὄνυχ, Lat. *ungui-s*, OHG. *nag-al*, Lith. *nága-s*, we may assume here the same transition of sound, which is established e. g. for rt. *nath*, the younger by-form of *nadh*, for *atha* by the side of the older *adha*[1]. That which became the rule in Greek, shows itself in Sanskrit in isolated traces, a kind of agreement, which often occurs in the case of kindred languages. In certain other words we may assume an aspiration of the tenuis under like conditions, as is certainly the case with the rt. *sta*, which in Skt. regularly, in Greek 423
sporadically (σθένος) aspirates the tenuis which is established by the majority of languages. Probably this holds good also of the ending of the 2 sing. *-tha* = σθα, where the *v* of the pronominal stem *tva*, dropped after the *t*, has certainly had its effect upon the aspiration. Finally, it might even be thought that the primitive Indo-Germanic language, by the side of the soft aspirates, possessed also original hard ones; a view which I mentioned on p. 82 as one for which Grassmann had given some reasons, but which was not yet established beyond question. If this view should be correct, a part of the Indian hard aspirates would correspond from the beginning to the Greek, but we could draw no conclusion from this as to the relation of the soft aspirates to the Greek. All attempts to derive the Indian *gh*, *dh*, *bh* from *kh*, *th*, *ph* are always opposed by the one main argument that in no single one of the kindred languages does a *k*, *t*, or *p* appear in the place of these sounds, but commonly enough a *g*, *d*, *b*. On the other hand, the number of stem-words, in which according to my view a Greek aspirate corresponds to a medial aspirate, reaches 111, while only isolated examples can be quoted for different

[1] Ascoli 'Studj Critici' ii. 165 = 'Ztschr.' xvii. 330 discusses these phonetic relations in another sense.

relations. The facts being such, nothing remains for us but to recognize the hardening of *gh*, *dh*, *bh* to χ, θ, φ as a fact which we have not to explain away, but rather to elucidate in its apparent strangeness.

The explanation formerly seemed to me to have been discovered by Arendt, who in the 'Beiträge zur vgl. Sprachforschung' ii. p. 283 ff. submits the soft aspirates in connexion with the sounds akin to them to a very thorough discussion. Arendt recognizes (p. 306) in the soft aspirates soft or *sonant* explosive sounds, which are directly united with that hard *surd* which we denote by *h*. For this very reason these sounds were difficult to pronounce; the vocal aperture, when they were produced had first to narrow itself, and then to open out again, without any interruption. In course of time this was made easier in two ways, some of the languages entirely giving up the aspiration, and hence changing *gh* into *g*, *dh* into *d*, and *bh* into *b*, while the Greeks on the other hand altered the soft explosives 'into sounds for which the vocal aperture was in just the same condition as for the following *h*, i. e. into tenues.' Hence, according to Arendt, the change consisted in a kind of assimilation of the first element to the second, and we might fairly compare the alteration of *nábhas* into *νέφος*, i. e. *nephos* with that by which rt. *βλαβ* changed its *β* into *π* in *βλαπ-τό-ς*. Since
424 the appearance of Arendt's essay (1861) the sound of the soft aspirates, as it is now produced by natives of India, has been several times investigated thoroughly. I need here refer only to Brücke in the 'Sitzungsber. der phil. hist. Cl. d. Wiener Akad.' vol. xxxi. p. 219, and in the 'Grundz. d. Lautphysiologie[2]' p. 114 ff., and also to Sievers' 'Lautphysiologie' p. 93 ff. Both maintain that the process was not so simple as Arendt assumed, and that a medial could always unite itself without any pause to the sound of our ordinary *h*. But, however we consider the soft aspirates in question to have been pronounced, so much is clear, that they were sounds very difficult to make. And this is abundantly sufficient for our purpose, for the result is that the change into the corresponding hard aspirates was one which conduced decidedly to ease, and so our principle receives sufficient support. At the same time a new reason is supplied hereby against the view

contested above, that the reverse course took place. For the change of *kh* to *gh* would have by no means conduced to ease. Ascoli has ('Ztschr.' xvii. 242 ff.) found a remarkable parallel to this hardening of the aspirates, which at first sight seems so strange. The language of the Gypsies in the same way replaces all soft aspirates of Sanskrit by the corresponding hard aspirates: Skt. *gharma-s* 'glow,' Gyps. *kham* 'sun,' Skt. *dhūma-s* 'smoke,' Gyps. *thuv*, Skt. *bhū-s* 'earth,' Gyps. *phuv*.

This fact of the hardening of the aspirates gains a much wider basis, if we follow the same scholar in his view of the Italian aspirates and their history. In 'Ztschr.' xvii. 241 ff., 321 ff., xviii. 417 ff., in a series of essays which are now reprinted in his 'Studj Critici' ii. 108 ff., Ascoli has laid down the doctrine that the Italian representatives of the original soft aspirates, before they assumed the forms of which we have historical evidence, had passed through the stage of the hard aspirates. Ascoli's scheme is the following ('Studj Critici' ii. p. 200):—

Indo-Germ. aspirates	*gh*		*dh*	*bh*
Early Italian and Early Greek aspirates	χ		θ	φ
Early Latin spirants	h		þ f	f
Latin representative	h- g- g-	-d-	f- -b-	f- -b-

This view offers the advantage of bringing into a closer union Greek and Latin, and also Latin and the other Italian languages, and of establishing a clear connexion for surprisingly varied phonetic phenomena. It has besides strong support in the hard or surd character of the Italian *f*. What 425
previously prevented me from agreeing with this theory, which was advanced with great acuteness and complete mastery of the material, was in the first place a doubt as to the origination of a *b* from the spirant *f*, and, secondly, the necessity, according to Ascoli's explanation, of assuming for the Italian soft explosives *g*, *d*, *b*, where they have originated from *gh*, *dh*, *bh*, a completely different origin from that of the corresponding sounds of the Persian, Slavo-Lithuanian, Teutonic, and Keltic languages, hence e.g. for the Lat. *g* of *lingo*, com-

pared with the Goth. *bi-laigôn* (No. 174), for the *d* of *aedes*, compared with the OIr. *aed* (No. 302), and for the *b* of *nūbēs*, compared with the ChSl. *nebo* (No. 402). But undeniably the course of the history of language was in many ways a more complicated one than scholars were inclined to assume twenty years ago. For instance, the change of an *f* into *b* between Goth. *ufar* and OHG. *ubar* (No. 392), ON. *svefn* 'somnus' and OHG. *swebjan* 'sopire' (No. 391) cannot be denied without violence. Perhaps it is to be explained by supposing that instead of the labio-dental narrowing, which *f* requires for its production, in the middle of a word there came to be an inter-labial contact, which finally could not be distinguished from the sound of a *b*. There are also not wanting instances in which the same primary sound has changed into the same sound in quite different ways in different languages. Thus the dialectic κέβλη, κεβάλη (No. 54) agrees in its β with the *b* of the Goth. *haubith*; but the β has to be regarded in Greek as a sporadic weakening of φ, but in Gothic as a regular representation of the Indo-Germanic *p*; and so the Goth. *hlif-tu-s* (No. 58) corresponds to the modern Greek κλέφ-τη-ς (Old Greek κλέπ-τη-ς). But the modern Greek φ (=*f*) is based upon a late change of the π before τ into the labio-dental spirant, the Gothic *f* upon the ancient rule of 'shifting.' For these reasons I feel no difficulty in now accepting unreservedly Ascoli's statement. The character þ, I may notice for the benefit of readers who have not access to Ascoli's own explanations, denotes in his scheme the inter-dental hard spirant, expressed in English by *th*, while - before and after a letter, e. g. *-b-* denotes that it occurs in the middle of a word.

The Teutonic 'shifting of sounds,' which in earlier editions I have at this point endeavoured to trace back to principle, has now been made the subject of such various and detailed discussions and attempts at explanation, that I am not in a position to enter upon it. I can omit it the more readily, because Greek etymology is not at all touched by it. One of the most recent discussions, that of Kräuter 'Zur Lautverschiebung' (Strassburg and London 1877), agrees with me at least in
426 the assumption that the starting-point of the whole movement

is to be found in the transmutation of the soft aspirates. Striking analogies to this Teutonic 'shifting' have been adduced from Armenian by Hübschmann 'Ztschr.' xxiii. 18 ff. It is very noteworthy that in this language too the movement affects all three series of mutes, aspirates, medials, and tenues.

We may explain, with yet greater ease than the transformation of the aspirates, two other processes, which at first sight might seem to be also in opposition to the main direction, which we have asserted. To these belongs the change of an original *j* into *ζ*, the thorough discussion of which we have reserved for one of the subsequent chapters, because it could only be carried out in conjunction with a whole series of other phenomena of language. The transition from *j* to *ζ* will be there seen to be by no means a strengthening, but a coarser pronunciation accompanied by a transformation of the spirant. Just as little can it be regarded as a strengthening, if the spirants *j* and *v* often appear in Greek under the form of the corresponding vowels *ι* and *υ*. For in the first place, owing to the close kinship of *j* and *i*, of *v* and *u*, it is in many cases impossible to make out, whether the consonant or the vowel is the more primitive. The Vedic Sanskrit shows an extensive variation between these nearly related sounds, and makes it probable, especially in the numerous formative suffixes with a *j*, which have Greek and Latin suffixes with an *i* corresponding to them (*ιο-ς*, *ια*, *ιον*, Lat. *iu-s*, *ia*, *ior*), that before the separation of the languages the vowel was predominant here. Secondly, the soft vowels *ι* and *υ* require hardly more force of articulation than the corresponding spirants, which of all sounds suffer the greatest displacements and losses, so that here too we by no means perceive any strengthening of the sounds. In fact, even if it should appear that other vowels also, most commonly *ε* and *ο*, take the place of these spirants, this will not seem to us an exception to the general direction.

After this glance back at regular phonetic change and the general direction which we may detect in it, we proceed to the task of surveying, in the first place generally, the character of the irregular or sporadic movement of sounds,

which is to be distinguished from it. At the time when I first sent this book out into the world, all such questions had as yet been to a very slight extent collectively discussed. In face of a method of procedure, which not unfrequently was very unsafe, it seemed to me that something was gained if, excluding
427 altogether what it was quite impossible to demonstrate, I simply distinguished the *rule*, established by numerous instances, from the *exception*, the phonetic *law* from the phonetic *tendency*, and marked off more definitely all that belonged to this region in the case of Greek. And this endeavour did not fail to win for me encouraging approval. Recently, in the case of some younger scholars the tendency has established itself, not indeed to deny absolutely the second kind of phonetic movement, the irregular or sporadic—this would be impossible even for the most zealous friend of rule—but yet to place a kind of ban upon it, and to look upon it as a matter of course with mistrust.

The watchword of this tendency is 'phonetic laws work blindly,' or, as Osthoff, 'Das Verbum in der Nominalcomposition' p. 326, puts it, 'with the blind necessity of nature.' We cannot omit to subject this assertion to examination. In the first enthusiasm at the firmer steps which the students of our science learnt to take, they did not always, I think, deal very cautiously with the word 'nature.' Too much was said about natural laws in language; and some even desired to include the whole of the science of language among the natural sciences. Schleicher especially went far in this direction; he as it were personified language as a living being, and thought he could lay down for it, as for the growth of plants or animals, laws universally valid. Although I never shared this view in all its ramifications, I am quite ready to admit that I have myself not always made a right use of the word 'nature.' But what sort of natural laws are those which required for the Ionic dialect the change from *ā* into *η*, and for the Doric the retention of the *ā*, or which bade the Greek hold fast to the old aspirates up to the first Christian centuries, and then give them up? I acknowledge that in respect of these views I have received much instruction and stimulus from the work of Whitney, which is full of sound and sober thinking. He urges

us throughout not to forget that the creators and employers of language are men, and that we have to guard carefully against hypostases, which sometimes pass quite into the region of myth. If we represent language, the linguistic sense, the linguistic instinct, or phonetic laws as personal activities, we must never forget that it is a figure of speech, of much the same kind as when we say: 'justice requires,' or 'a feeling of decency forbids this.' Language belongs to the soul of men, alike in its phonetic as in its more intellectual side[1]. The laws of language are of a similar kind to the laws and behests of custom 428
and right, only that we can never trace back the origin of the laws of language to individual lawgivers. Even the most firmly established linguistic usages rest in a very small degree upon the physical incapacity of a nation to produce at a certain period certain sounds or combinations of sound. A Greek could at all times, as is shown by ἦσαν, θράσος, very well pronounce a σ between two vowels. But the custom had established itself with him, to allow a soft σ in this position to drop. The Athenian avoided to a great extent the combination ρη, but that his organs of speech could produce this very well is shown by words like χρῆσθαι, κόρη. An old Italian *f* was represented in the middle of a word by *b*, but the Romans had no difficulty in pronouncing *rūfus*. By looking at them in this way the demonstrable laws of language lose nothing of their steadfastness. There are indeed also inviolable customs, habits of life, and legal ordinances in a nation, exceptions to which are hardly to be found, and the life of the soul is no more excerpt from laws than the physical life. But by the side of these there are customs which are observed with less regularity; and in just the same way there are in every language phonetic changes, which have not become laws, and yet are not a matter of absolute caprice. It is true that language is as a rule more uniformly and firmly ordered than custom and right, because mere fancy and the pleasure of the individual has no play in it. Hence nothing is to be rejected more decidedly than the too hasty and unwarranted admission of

[1] I am very glad to find myself agreeing here with much that Brugman says in the 'Morphologische Untersuchungen' by himself, and Osthoff, i. p. 12.

exceptions. Up to a certain point, then, all forces in language work blindly, for a full consciousness of the processes is doubtless extremely rarely present. Even analogy, which is allowed to compete with blind natural necessity, is based upon the operation of conceptions dimly hovering before the mind. Language requires to be measured with her own measure. For the history of language, as for all history, there is no other course than that of feeling one's way cautiously from surely established facts, and so tracing out those which are less plain, and in seeking support for the correctness of the results arrived at in the manner in which they fit into each other.

But enough of these general considerations[1]. The whole of the third book has to do with the demonstration of particular sporadic transitions of sound. But now that mistrust has once been aroused, I consider it not superfluous to collect here
429 beforehand a number of especially clear cases, which come less under consideration further on, and are not wholly derived from Greek, and then to take up the question where we have to seek the explanation of this whole phenomenon.

Transitions of sound (*πάθη*), brought about naturally, not by caprice, are divided by the old etymologists into three classes: *ἔλλειψις*, *πλεονασμός*, *τροπή*. If we adopt here this division, in the first place *loss*, especially at the beginning of a word, is one of the most undeniable processes. The loss of an initial *σ* was assumed by us in the case of *κείω* (45 b), *κείρω* (53), *κλῆϊς* (59), *κοϝ* (64), *κίδναται* beside *σκίδναται* (294), *κόπτω* (686), *κρίνω* (76) before *κ*, in the case of *τέγος* (155), *ταῦρος* (232), *ταφ* (233), *τύπτω* (249), *τύρβη* (250) before *τ*, in the case of *πεν* (354) before *π*, and that of a *γ* before *λ* in *λίς* (544) 'smooth.' Is this loss the effect of a phonetic law? No one can maintain this, for *σκ*, *στ*, *σπ*, *γλ* are favourite initial combinations in Greek. The Attic writers use *στέγος* (cp. *στέγη*) as well as *τέγος*, which is in use from the time of Homer, and better suits Lat. *tego*, *tectum*, Goth. *thak*. From Homer onwards *σμικρός* and *μικρός* are found side by side. Sanskrit supplies us with *tārā́* (205) 'star,' beside the Ved. *stṛ́-bhis*, *paç-jā-mi* (111)

[1] [Professor Curtius has returned to this subject in his essay, 'Zur Kritik der neuesten Sprachforschung' (Leipzig 1885)].

'I see,' besides *spaç-a-s* 'spy,' and Latin *cŭ-ti-s* (113) beside *scū-tu-m*. Gothic has preserved in *stiur* the *s*, which is still heard in the German *Stier*, and English *steer*, while ταῦρο-ς (232), *tauru-s*, ChSl. *turŭ*, ON. *thór-r* have lost the sibilant. In Irish *sc*, *sr*, *sn*, *sm* have been retained when initial remarkably often, but on the other hand, what is in other languages a mere tendency to drop an initial *s* before *t*, has become an established law: cp. Nos. 155, 177, 216, 219, 233. How else are we to describe this but as sporadic loss of sound? In the Skt. numeral *dvāu* (277) and in other words denoting duality *dv* is retained, but in *vi̯çati* (No. 16) it has become a simple *v*, and the evidence of the cognate languages shows that this bifurcation is very ancient, and that therefore in very early times without any discoverable reason two numerals of the same origin were treated differently as to the initial letter. No one probably will deny that the Skt. dat. gen. *tē* belongs to the stem *tva* 'thou,' and yet the loss of *v* after *t* is quite isolated. In the case of the combination σϝ, of which we no longer find any written evidence for Greek, the language evidently adopted a 'bifurcating' course, when it was initial. Either the σ disappeared, as in ϝαδεῖν (252), ϝέ (601), ϝέθος (305), ϝιδίω (283), or on the contrary, the ϝ assimilated itself to the preceding σ, which then as a sharp sibilant did not pass into an aspirate, as in σίδηρος (293), σάλπιγξ (388 b), σάλος (556), σιγή (572), σιωπή (572 b), σομφός (575). The clearest evidence of this process is furnished by the Homeric κονίσσαλο-ς (with the variant κονί- 430
σαλο-ς), which evidently originated in κονι-σϝαλο-ς, and with ἴσος (569) = *vishva* gives the best proof that the combination σϝ can through σσ become a simple σ. — The Keltic languages hold a very different position with regard to *sv* when initial. In the British branch *chw* has come from it, a developement like the Zd. *q*: Cymr. *chwaer* 'sister,' plur. *chwioryd*, Zd. acc. sing. *qaṅharem*. In Irish either the *s* (as *s*) or the *v* (as *f*) has been retained, and indeed both sounds alternating in one and the same word: *siur* and *fiur* 'sister,' *sollus* and *follus* 'clear' (No. 663), Cymr. *chwech* 'six,' Ir. *sé* 'six,' *sesser* 'six men,' but *mor-fesser* 'great six men,' i.e. 'seven men' (No. 584). — The rule that τ before ι became σ with the Ionic Greeks (Dor. φᾱτί, Ion. φη-σί) is never observed in the dat. sing. of the τ-stems:

κέρατ-ι, παντ-ί, nor in *ἔτι, ἀντί*. — The apocope of vowels is certainly no phonetic law of Greek, as is shown by *ἐστί, ἀπό* beside Lat. *est, ab*, and yet it is found in numerous prepositions from Homer onwards, in the most different dialects. From *λέγουσι* we never get **λέγους*, but undoubtedly from *λόγοισι* the Attic and Doric *λόγοις*. Or is this also to be denied? Perhaps too it will be denied—as some are very fond of borrowing examples from living languages—that in *heutzutage* the *e* of *heute*, and in the dative *dem Mann* the *e* of *Manne* has been lost. What is to be done with Lat. *dic, duc, fac* beside *jace, pete* [and the Plautine *dice, duce* etc.]? In the case of these, I suppose, the assumption holds good that forms in frequent use are occasionally liable to especial mutilations.

Growth (*πλεονασμός*) is recognized by the more recent science of language mainly in the form of a developement of vowels, and of some few consonants, out of neighbouring consonants. We shall enter upon this in the closing chapters. Since the publication of the second part of Joh. Schmidt's 'Vocalismus,' the developement of vowels from nasals, liquids, and spirants has been treated with especial interest. But in this there has been discovered nothing in the way of natural necessity. Before *ϝ* a vowel was developed in *ἐείκοσι* (16), *ἐέρση* (Cret. *ἄερσα* 497), while forms like **ἔοινος*, **ἐείκω*, which are just as conceiveable, do not occur; and an *α* has sprung up before *λ* in *ἀλείφω*, before *μ* in *ἀμέλγω*, of which *λείπω* and *μένω* know nothing. In *ἄφ-ενος* an internal vowel has been developed, but not in *ἀφνειό-ς*. Conversely the Lat. *fēmina* has retained the vowel of the suffix, which in *Vertumnus, columna* has disappeared. *βέλεμνον, τέρεμνος, Μέθυμνα, στάμνος* have lost the vowel between the two nasals, which was retained in the great majority of participles. It was only very gradually that in Latin the usage became established in the case of *poclum* or *poculum*,
431 *dextera* or *dextra*. There is a clear case of growth at the end in the so-called ephelkystic *ν*, the fluctuating appearance of which is at the same time an especially plain example of the fact that there were other forces at work in the life of language besides phonetic laws and the tendency to imitation.

The wide sphere of *τροπή* or phonetic change in its narrower sense embraces on the one hand combined sounds, and on the

other simple sounds. Examples of both classes may be adduced here. *ks* is differently treated. Sometimes it remains unchanged, e.g. *ἄξων* beside Skt. *áksha-s*, Lat. *axis* (582), sometimes by assimilation of the *s* to the *k* it becomes *kt*: *τέκτων* (235) beside *tákshan*, *ἄρκτος* (8) beside *ṛ́ksha-s*. — The combination *ρσ* is treated in three ways. It remains unchanged in *θάρσος*, *ἔρση*; it is assimilated to *ρρ* in *ὄρρος*, *πυρρός*; it becomes a simple *ρ*, with compensatory lengthening in aorists like *ἔκειρα*, in *οὐρά* (505), and without it in *ὄρος* beside Hom. *οὔρεα* (504). — From the same combination *λj* comes *λλ* in *ἄλλος* and numerous other cases, *λ* with compensatory lengthening in *κᾱλός* (later *κᾰλός*), while the substantive *τὸ κάλλος* and the comparative *καλλίων* show the regular doubled consonant.—From *ἐγέννατο*, preserved among the Aeolians of Lesbos, came the Attic *ἐγείνατο*, but *γεννᾶν* and *γενναῖος* always preserved the double *νν*. In distinction from this there came in Attic from the primary form *ξενϝο-ς* (Inscript. of Corcyra) not **ξέννος*, the regular Aeolic form, but with a single *ν* *ξένος*, without the compensatory lengthening which may be seen in the Ionic *ξεῖνος*. — As the whole of the investigation which follows is occupied with the demonstration of sporadic transitions, it will be sufficient here to bring into prominence phenomena belonging to this sphere, like aspiration and softening. No natural necessity produced the *χ* in the Hom. *ὀρωρέχαται*, in *λύχνος* beside *λίκνον*, *πυκνός*, any more than the *φ* in the Herodotean *πέπομφα* beside *πομπή*, the *b* in Skt. *pí-bā-mi* and the Lat. *bi-bo* (371), or the *γ* in *μίσγω* beside *misceo* (474) or in *ὀλίγος* beside rt. *lik* (553). Any one who denies sporadic changes of sound would have to separate *σῦς* from *ὗς* (both Homeric), and Skt. *çváçura-s* from *ἑκυρό-ς* (20), and he would find his position difficult with regard to the interchange between *ρ* and *λ*, e.g. *αἱρέω*, Cret. *αἰλέω*, ordinary Greek aorist *εἷλον*. The demonstration, excellently supported by Osthoff in the first volume of his 'Forschungen,' following several previous scholars, that the Indo-Germanic suffix *-tra* appears in Latin not merely as *-tro* (*ara-tru-m*) but also as *-cro*, *-clo*[1], *-culo* (*lava-crum*, Osc. *sakara-klu-m*, Lat. *ora-cu-* 432

[1] Sayce 'Principles of Comparative Philology' p. 49 compares the usual [†] English pronunciation of *at least* as *ac least*.

lu-m) would be necessarily looked upon now by its author himself 'with mistrust.' The epenthesis of an *ι* is in Greek a phenomenon in many cases as unmistakeable as it is incalculable in its appearance, which e.g. in the preposition *ἐνί* in Homer sometimes makes itself apparent, sometimes not, while it shows itself in *κεινός* for *κενjος*, without however excluding *κενεός*.

Naturally these examples might be easily multiplied, and the following pages supply abundant materials. The only other cases I will refer to are *σκέπ-το-μαι* beside *spec-io* and Skt. (*s*)*paç* (111), and Lith. *kep-ú* beside ChSl. *pek-ą* (630). For myself I am content to point out what a hard task would await any one who to maintain this 'blind necessity' would do away with sporadic phonetic change. And so long as this has not been done, I see no advantage in passing a vote of 'no confidence' upon this process. It seems to me better worth while to trace out the inducements which render intelligible to us such a fluctuation as we recognize, even within the limits of one and the same idiom and the same period of language,—and must recognize if we are not to close our eyes to evident facts, without on that account falling into arbitrariness or uncontrolled license. In such an inquiry after the reasons we shall often not reach the goal, as is frequently the case in the entangled paths of the life of language, but some points, I think, may still be made probable. I may mention especially the following.

In the first place, we must keep well in view the fact that a language or a dialect is at no time a complete and entire unity, formed at a stroke, but rather an entity which is throughout historical, created by degrees, and consisting of strata piled one upon another. Even in the idiom of a section of the history of language, marked off sharply in time, there are always to be found, beside the uppermost stratum of the phonetic forms which have become dominant, older intrusions, which, from some reason which we cannot always discover, crop up in the more recent periods. Sometimes a single word may have got loose in early times from the family of kindred words, and after the sense of connexion had been lost, preserved faithfully the older sound, which was altered in the

majority. It seems to me probable that the κ of ἄ-τρακ-τος beside the π of τρέπω (p. 468 No. 633) is to be so explained. This retention of the old beside the new is perhaps less extensive in languages without literature and without popular 433
poetry, but it is especially extensive in a nation which like the Greek in the earliest time gave birth to a universally celebrated Epos, familiar to all, and which up to the establishment of Atticism created a poetry richly developed also in other directions. Half obsolete words from earlier times crop up in Attic Greek, e. g. ἔπος, which was retained only in the phrase ὡς ἔπος εἰπεῖν, ὅς and ὥς preserved their anaphoric force only in a few applications. But not merely do whole words take such a position, but also forms of words of a more ancient stamp are found scattered among the mass of new formations. Even the modern High German has individual words, which by their phonetic form point to a much earlier time: e. g. *Brāuti-gam*, *Nachti-gal*, where, as Jacob Grimm says, 'the old full sound of the vowels has been preserved,' or *be-quem*, now the sole relic of the OHG. *queman*, which elsewhere has become *kommen*. The few Homeric words, which in the nominal suffix τι has not changed τ into σ: βωτιάνειρα, φάτις, μῆτις, χῆτις (cp. χατίζω), are doubtless to be explained in the same way. They are all words of an antique type, of which φάτις as a poetic word remained unchanged even in the Attic writers. μάντις takes up a special position on the score of its ν. Here perhaps the hieratic usage had a conservative effect.

There are noteworthy differences in the treatment of the group σμ in Greek. In the prehistoric time the Greeks were disinclined to this group, so that σμ was changed into μμ, and frequently was preserved only as μ, sometimes with, but also sometimes without compensatory lengthening: Skt. *asmát*, Aeol. ἄμμες, Dor. ἁμές, Skt. *ásmi*, Aeol. ἔμμι, Dor. ἠμί, Ion. εἰμί, ἦμαι for ἡσ-μαι (568), Hom. πύματος for πυσ-ματος (p. 716). On the other hand an σ which has arisen out of other dentals is a favourite sound before μ, from Homer downwards: ὑσ-μῖν-ι (608), κόσ-μο-ς (25), πεῖσ-μα (326), later ἴσ-μεν, ὀσ-μή, λογισ-μό-ς. But there is no complete consistency here, for the σ is retained, although original, in the Att. ἐσμέν as compared with Ion. εἰμέν, Dor. ἠμέν. Perhaps in this case forms like

ἐστί, ἐστέ have had their influence, especially as σμ was a very common combination in the Attic time. But the contrast in the Homeric language too between εἰμί, εἰμέν on the one hand, and ἔμμεναι, ἔμεναι on the other is still surprising. We see here clearly how the products of different stages of the language lie side by side. — It is an archaism, as Fick ii³. 236 also assumes, that σ is retained in θρασύ-ς, θράσος beside θάρσος, and in πράσον beside Lat. *porrum*, which is explained from the fact that *θαρσύ-ς, θάρσος (θαρσύνω) were the older forms. When metathesis came in, the sibilant was too firmly attached to be set aside. Still the Argive proper name
434 Θράῡλλος shows that in particular dialects the ruling tendency to the aspiration of the σ prevailed. We may explain in a similar way the retention of the initial σ in σῡριγξ, which goes back to an earlier *σϝαριγξ or *σϝεριγξ. The σ once occurring in combination was retained after the ϝα or ϝε had been reduced to υ, precisely as in the Homeric ἥῡσε ἀῡτή the integrity of the initial, not contracted vowel is based upon the earlier occurrence of the fuller rt. αϝε. A very clear instance of the effect produced at a much later period by an older sound long extinct is found in the three Attic words in -ρη: δέρη, κόρη, κόρρη ('Stud.' i. 1, 248): in the case of each of the three an older form with a consonant after the ρ is established (cp. on No. 53). The retention of doubled consonants in some more isolated words like γεννᾶν, γενναῖος, ἐννέα, ὄρρος I regard in the same way. The whole so-called conjugation in -μι is fundamentally an archaism of the kind, which, in spite of the powerful attractive force of the prevalent method of formation, has been preserved among the Greeks to a proportionately wide extent. Why may we not regard that as possible in the sphere of phonetics, which is universally recognized in respect of formation and vocabulary?

Another source of violations of the phonetic rule lies in the influence of dialects one upon another. Violations of this kind are universally recognized, and will not be wholly denied even by the most zealous defenders of regularity in this sphere. Indeed, scholars were formerly very much inclined to put difficult words, to a certain degree, out of all control by denoting them as 'dialectic'; a procedure which is

objectionable in method, where we have no demonstrable indications of a definite dialect. The extraordinary abundance of synonymous forms in Homer is certainly to be explained to some extent from the intermixture of Aeolisms, though mainly from the retention of the old beside the new. For Herodotus' ἄμπωτις 'ebb' with its surprising τ we might, if only on the strength of the ω (cp. Aeol. πώνω=πίνω), conjecture that it was borrowed from some un-Ionic dialect. The π of the Attic πέμπ-το-ς, πεμπ-άς, πεμπάζω agrees much better with the Aeolic πέμπε than with the Attic πέντε: and ποινή, if it belongs to the Cypr. πείσει, agrees better with this than with the common Greek τίω (cp. p. 472). ἱστορεῖν, ἱστορία are Ionic words, with a rough breathing, surprising in face of ἴσμεν, οἶδα, etc. These words borrowed by the tragedians from the pre-Attic literature were never really popularly current in Attic prose. The un-Attic Ἀθάνα, which appears in the tragedians, and not only in melic passages, is certainly a Dorism or an Aeolism. For πρύτανις, which belongs to πρό, we might 435
conjecture Aeolic origin. In the case of ἀνώνυμος, συνώνυμος, etc., (cp. πανήγυρις beside ἀγορά) this assumption is improbable, because here the υ both in the stem-word and in composition, extends much further. Certainly the effects of these local transferences are not on the whole very common in Greek. But we must keep cases of the kind before our eyes, that we may judge from them what is linguistically possible. Many considerations of a different kind, which belong here, have been adduced by me in my essay 'On the range of phonetic laws, especially in Greek and Latin' ('Berichte der k. sächs. Ges. d. Wissensch.' July 1870). I may refer especially to the difference in the *position* of the phonetic change. I am by no means inclined in this respect to demand an abstract equality before the law, and to maintain of the majesty of phonetic laws that it is blind like justice. The phonetic changes which here come under consideration are almost all based upon convenience. What is more justified psychologically than that mortal men when speaking, paid homage to the vis inertiae in the main syllables of words, that is, in the stem-syllables with important limitations, and also frequently in the final syllables, only so far as

not to imperil too greatly the intelligibility of the word or the sentence; while they did so to a somewhat greater extent in final syllables, and in particles not unsuitably called 'empty' words? Such considerations explain to us the following facts. The *ι* of the dat. plur. of the *α* and *ο* declensions was dropped by the Athenian, for χώραις, λόγοις are quite intelligible, but not the *ι* of the 3 plur. in *-ουσι*, *-ᾱσι*. The surprising change in Latin from *tr* into *cl* has been established very sparingly in stem-syllables, but all the more abundantly in syllables forming stems, which do not contribute much that is of importance (Osthoff 'Forsch.' i.). The Boeotians never changed the *ξ* of the nom. sing. into *ς*, but they did change that of the preposition ἐξ, which took the form of ἐς, and in the adverb πέριξ, which appeared as πέρις. With the Romans we find by the side of *ex* the forms *ec* and *ē*, but where do we find beside *rex* a **rec* or **rē*? The poets frequently used πολλάκι besides πολλάκις. It appears to me by no means incredible that in this isolated case the *ς*, which at that time had no significance, disappeared. I cannot believe in a safe conduct granted by the laws of nature, which made every final sigma absolutely inviolable; and still less that, as has been conjectured, on the analogy of little words like ἐξ, ἀμφίς, which had nothing in common with πολλάκις except
436 the quite abstract category of the *indeclinabilia*, one not to be grasped by the popular instinct of language, the *ς* was added at a later time. A quite isolated loss of sound is shown by the Homeric ἄρ and the Old Elean τά τ' ἄλ (C. I. G. No. 11). These are the only Greek words which lost a final *α*, and in the case of ἄρα the initial ἀ may admittedly be dropped at pleasure, so that ἄρα, ἄρ, and ῥά stand side by side. From εἰ ἄν came at an early time ἐάν, which long maintained itself, although ἤν and ἄν were used beside it, the former even in Homer. Even Herodian collected μονήρεις λέξεις, words which in some respect stand alone. It will not be possible to get rid of this conception out of the science of language.

Finally, we must not lose sight of the fact that the written sound never quite coincides with the spoken. Hence if the sound expressed by the same sign, e.g. the *j* in one case becomes a vowel, e.g. *i*, in the other a consonant, e.g. *z* or Gk. ζ,

this may be very well explained, as has been already conjectured in other quarters, from a minute difference of the two mother-sounds at an earlier time, for which indeed all tradition is lacking in the particular case, and which it seems to me exaggeration to regard as exempt from change. But what was otherwise the use of the physiology of phonetics, with its teaching that every single sound in language denoted by a sign is properly only the representative of a whole series of sounds, which under the more delicate investigation of living languages admit of being very well distinguished, but which are closely akin? For instance, to understand the irregularities of the dental sibilant in Greek, we must not neglect the difference between the sharp and the soft *s*. We shall come back to this point when dealing with the spirants and their Greek transformations.

Reference must be made also to accent as a source of peculiarities, especially in vocalism. Indeed recently its importance has been successfully established for the consonants also in the Teutonic languages. Perhaps this is a side of the question which will be most readily recognized by the opponents of isolated transitions of sound. This possibility also must be kept before our eyes. But certainly hardly anything has as yet been surely established to clear up the questions with which we are here concerned. The student of language has to deal at every step with unknown quantities. It is a mistake, in every case to admit as a fact, nothing but what has been explained completely and with full certainty. Much is meanwhile often gained by simply putting side by side a set of facts. Often new sources of knowledge or continued special inquiries 437
furnish new explanation, where previously only uncertain conjectures as to the reasons of the phenomenon were possible.

Even for irregular or for sporadic substitution of sounds, we must take as our guiding line the fact that we are to expect only a transition of the stronger sound into the weaker, not *vice versa*. We have seen already (p. 23) how much has been gained for the control and regulation of etymology by this one principle, the recognition of which we owe entirely to comparative philology. The etymologies of the ancients ultimately went so far as to regard as possible the

change of any letter into almost any other; and the comical attempt of L. Ross, to make the 'Italicans' once more into sons of the 'Graeci' [cp. Hadley's 'Essays' pp. 141–167] amounted to the assertion of the principle that 'no sound was secure against changing into another.' All such assumptions are based upon the tacit presumption that change of sound is occasioned by accidental instances of inaccuracy and vagueness on the part of speakers. What is accidental can only be guessed at; and hence the older etymology had really a character of pure divination, and in the delight it took in its professed art of solving riddles, it was not rarely the first to set them itself. In place of these endless metamorphoses, which, viewed as a whole, leave on us the impression of magicians' or conjurors' tricks, we endeavour to establish a definite tendency. If we succeed in this, an important limit is put to arbitrary etymologising, inasmuch as certain assumptions, in the sphere of phonetics at any rate, are excluded as impossible. We readily acknowledge that this goal is not yet reached. And it cannot be denied that the thorough special investigations of the last ten years have led us to see that the courses taken by phonetic changes are more involved than we thought them. We had something to say upon this on p. 410 (note), but saw at the same time that, in spite of all, we are well justified in holding firmly to the principle, the endeavour after greater ease in sounds, as the guiding one. Only now the conception of weakening or ease will seem to us less simple than formerly. The physiology of phonetics has more and more shown us how manifold are the sounds which the alphabet denotes as unities, and to what modifications their production is subject. I have always laid stress upon the fact that we are still only at the beginning. Even in the present position of the inquiry fortunately a complete agreement has been established as to the inherent improbability of
438 many phonetic changes which have been asserted. For example, if it has recently been maintained, that in certain derivative endings the guttural tenuis κ has originated from the dental medial δ, or if on the other hand this same κ has been derived from σ or ϝ, such suppositions now hardly find a supporter.

According to these explanations, we shall have to endeavour to examine the relation of the various sounds to each other, arranging them according to the force required for their articulation, in order to be able to estimate what sporadic changes of sound are probable, what are improbable. It is understood, of course, that by changes we mean only such as take place without any influence from juxtaposition, which is evident and universally recognized: that e. g. the change from *γ* into *κ* before *τ*: *ἀκ-τό-ς*, or before *σ*: *ἄξω*, i. e. *ἀκ-σω*, is here left quite out of the question. For in such changes, which fall under the head of assimilation, the transition of the weaker sound into the stronger is unmistakeable. In the same way, the foreign or loan-words of each language are entirely excluded from our consideration at present. We may see most clearly from the numerous Greek loan-words in Latin, how much wider are the laws which govern the phonetic relations of such words. Loan-words are, of course, exposed to manifold transformations, for they are carried like merchandise from one nation to another. In such cases we have only to deal with attempts to accommodate the form of foreign sounds, which often cannot be exactly reproduced, to the sounds of the borrowers' own language. Hence, for example, the various ways of reproducing the Greek *φ* among the Romans, which appears sometimes as *p* (*purpura*), sometimes as *b* (*Bruges*), sometimes as *f* (*forbea* = *φορβή* Fest. s. v. cp. p. 300). We have further the adaptation to the native vocabulary, for which Förstemann ('Ztschr.' i. ad init.) has introduced the excellent name 'popular etymology' (*Volksetymologie*) [Cp. Max Müller 'Lectures' ii. 367–8, 529–533]. We cannot doubt that Lat. *cādūceus*, as was conjectured long ago (Vossius 'Etym.' s. v.) is really only a Latinisation of Dor. *καρύκιον* (Att. *κηρύκειον*), and probably, in spite of the length of the *ā*, we may recognize an assimilation to *cĕdo*, *cĕdūcus*. But it would be very incorrect to regard the transition from *r* to *d* as admissible generally, i.e. even in native and inherited words. In Greek the number of words, that may be shown to have been borrowed, cannot be great. But even in the case of these many phonetic transitions occur, which we could not allow for the inherited

stores of the language. Benfey ii. 88 compares the Gk. *πάνθηρ* with the Skt. *puṇḍárīka-s*: this is perhaps the single
439 instance in which Gk. *θ* corresponds to a *ḍ* of the Indians, and the assimilation to the Gk. *θήρ* is unmistakeable. Bopp ('Gloss.'), Benfey ii. 65 and, following them, Christ ('Lautlehre' p. 14) compare *βάσανο-ς* with the Skt. *pāshāṇá-s* 'stone,' 'touchstone:' this word too may be regarded with Benfey as only a borrowed word, but I do not attempt to decide whether the Greeks borrowed the name for the *lapis Lydius* from the Indians, or whether both these nations received it from a third: for in Sanskrit too the word is quite isolated. Benfey compares Hebr. *bâshan* 'land of basalt [1].' Hence it would be a serious error to quote this comparison in order to prove *β* equivalent to Skt. *p*.

If, after thus defining the limits of our sphere, we review the individual sounds according to their proportionate strength, the vowels offer the least difficulty. For it is universally recognized that *a*, the strongest of the vowels, requires the greatest force of articulation, and that *u* and *i* stand by its side as weaker sounds (cp. Bopp 'Vergl. Gr.' i². 13, etc.). We must therefore absolutely reject the transition of *u* or *i* into *a*, —and indeed hardly any one could have supposed this to take place, at any rate in Greek; — but conversely we must hold the change of *a* into the weaker *u* or *i* as in itself probable; and hence in Latin and Teutonic too we find innumerable instances of a *u* or an *i* by the side of an original *a*. In the case of Latin indeed this transition does not seem to be direct, but to have come in through the intermediate stages of *o* and *e*, so that e.g. we may assume with certainty between Skt. *dā́na-m* and Lat. *dōnu-m* the form *dōno-m*, and with great probability between the negative particle which in Skt., Gk., and Osc. takes the form *an*, and Lat. *in* the intermediate form *en*. For the Italian languages we may refer on this point to the thorough investigation of Corssen in the second

[1] A. Müller in Bezzenb. 'Beitr.' i. 287 denies the Semitic origin of the word, without mentioning the Skt. word, and proposes an etymology of *βάσανος* based upon the Lithuanian *bandýti* 'test,' and a suffix (also Lithuanian) *-sena*: this is certainly very bold, and in any case is quite irreconcileable with the Skt. *pāshāṇá-s*.

edition of his work on the 'Pronunciation, etc. of Latin' vol. ii. It is true that of the Teutonic languages it is precisely the oldest form, the Gothic, which shows the most commonly *i* and *u* in the place of an *a*, e.g. in *is-t* = Skt. *ás-ti*, Gk. *ἐσ-τί*, Lat. *es-t*, and in the negative *un-*, where the vowels have remained to the present day, in German as in English. Hitherto no intermediate stages have here been demonstrated; on the contrary, the *ë* of the Old High German, which corresponds to the Greek and Latin *e*, is derived from *i*, and the corresponding *o* from *u*, by 'breaking' [i.e. by 440
the influence of a contiguous consonant]. But from my investigation of the 'splitting of the A-sound' ('Sitzungsberichte der k. s. Ges. d. Wissensch.' 1864 p. 9 ff.), the results of which have been mentioned above, pp. 52 and 92, it seems to me probable that the Old High German has rather preserved in these cases the older sound, so that this branch of the Teutonic family, though only known to us at a later date, still gives us here, as in other cases, the representation of an older condition of the language, than the Gothic[1]. I will not here enter into the analogous phenomena in Slavonic and Lithuanian. But even in Sanskrit it is by no means uncommon to find the softer vowels in the place of an older *a*, and that even in stems, which have elsewhere, and partially in kindred formations of Sanskrit itself, retained their *a*; especially in the st. *pi-tar* nom. *pi-tā́* (No. 348) = *πα-τερ* nom. *πα-τήρ*, Lat. *pa-ter*, Goth. *fa-dar*; *hir-aṇa-m* 'gold' (No. 202) by the side of Zd. *zar-anya*; *sthí-ti-s* = Gk. *στά-σι-ς* for *sta-ti-s* (No. 216); *niç-ā* 'night' by the side of *nák-ta-m*, Goth. *naht-s*, Lith. *nak-tì-s* (No. 94); *purás* = Gk. *πάρος* (No. 347); rt. *çudh* 'purify' = Gk. *καθ* in *καθ-αρό-ς* (No. 26), while the Slaves replace the *a* of this root by *i*: ChSl. *čis-tŭ* 'clean.' Sanskrit grammar explains these weakenings in part by the influence of the accent; but we cannot account for all cases without assuming extensive shiftings of the

[1] Cp. Scherer 'Z. Gesch. d. d. Sprache' pp. 7, 186 etc., where it is stated that Müllenhoff had previously expressed this view in his lectures. — These relations are thoroughly discussed in the same sense by Fick 'Die ehemalige Spracheinheit der Indogermanen Europas' p. 176 ff.

accent. We see in Skt. to a yet more extensive degree a long *ā* degraded under similar conditions into a long *ī*, a phenomenon, which is very surprising, and which certainly deserved a thorough discussion. Greek is entirely free from this serious mutilation of the original form. In our tables on p. 128 [vol. i. 158] *ι* and *υ* could not be placed among the regular representatives in Greek even of an original *ă*. After the original *a* had at a far earlier period split into *a*, *e*, *o*, the majority of the Greek dialects remained at this stage, while the Aeolic dialect, and, evidently at a much later period, the Italic languages, went one step further, frequently weakening *e* and *o* into *i* and *u*. In this respect, therefore, the vowel-system of Greek is, on the whole, older than that of Latin, though this has on the other hand preserved much in its consonant-system more faithfully from the primitive
441 time than Greek has. The splitting of the *a* into the triple chord cannot occupy us further here, when we are proceeding to the irregular substitution of sounds. It can only be understood from the particular conditions of the individual words, and hence it falls within the sphere of specifically Greek phonetics, which is foreign to these investigations. We here regard etymology as the science of the discovery of the origin of words. The etymologist may expect for every Greek *α*, *ε*, *ο* an original *a*, for *ᾱ*, *η*, *ω* an *ā*. That is sufficient for our present position. But certainly recent investigation has taught us to pay more attention also to the differences of the *a* within the European languages. Various aspects of the question have already been discussed on p. 51 ff.[1].

When we pass on to the consonants, we have first to take into consideration the relation of the two main classes of consonants to one another. How are the explosive or momentary consonants related to the fricative or continuous sounds? At first sight it might seem as though the latter class were the stronger, inasmuch as we hear a stronger

[1] Besides the recent attempts to establish greater antiquity of the European variety of vocalism compared with the monotony of the Asiatic languages, mentioned on p. 93, we must notice now the acute 'Essai d'une distinction des différents *a* Indo-Européens' of F. de Saussure in the 'Mém. d. l. Soc. de Linguistique' iii. p. 359 ff.

sound, when an *r* is vigorously rolled, or an *s* is thoroughly hissed on the teeth, than in the case of *t* or *d*. But it is not the strength of the sound which reaches the ear, with which an investigation is concerned, but the force of articulation. The explosive sounds, called in the older terminology mutes, are produced, physiologists tell us, by causing an obstruction at a certain place in the mouth, and then letting the breath pour out at one moment (Brücke 'Grundzüge der Phys. u. Syst. der Sprachlaute[2]' p. 41); while the fricative or continuous sounds on the other hand are produced, when at a certain place in the organs of speech there is merely a 'narrowing' caused, in consequence of which the breath, as it streams out, presses through or *rubs*, and thus produces a sound. Hence we cannot doubt which class of consonants requires the more energy: of course it is the former, inasmuch as obstruction is an action of greater force than narrowing. We shall therefore be inclined, in cases where two sounds appear to correspond etymologically, to ascribe the priority to the explosive over the continuous sound, and to explain the transition of the former into the latter as a gradual enfeebling of articulation. It is in agreement with this view that the changes of *t* into *s* — Indo-G. and Lat. *tu*, Dor. *τύ*, common 442
Greek *σύ*, of *d* into *l* — Gk. *δάκρυ*, OLat. *dacruma* (No. 10), later *lacruma*, of *d* into *r* — Lat. *ar-vorsum* for *ad-vorsum*, of *b* into *v* — Ital. *avere* = Lat. *habere*, of *c* = *k* into a sibilant — *centum* = *kentum*, Fr. *cent*, of *g* into *j* (*y*) — *Geist* in Berlin pronounced *Jeist* (*Yeist*) — always in this direction, not in the reverse order, are universally recognized, and may be established by countless examples from periods of languages, which may be known historically with completeness. But to these also belong a number of other changes, which are in part yet stronger, and which have to be explained by means of intermediate steps. For instance, there is the regular transition from *ḳ* to *ç* in Sanskrit and Persian, discussed on pp. 27 ff. and 86 ff. If the Slavonic languages go one step further, replacing the primitive *ḳ* by the dental *s*, this change too finds its place here: hence e.g. that of the Indo-G. *daḳan*, Skt. *daçan* into ChSl. *deseti* (No. 12), towards which we have perhaps the intermediate stage retained in the Lith.

dészimtis, for the *sz* here sounds like the German *sch* [Eng. *sh*], and is therefore related to the original *k* just as the initial sound of the Fr. *cheval* is to that of the Lat. *caballus*. The replacement of the Old Greek aspirates *kh*, *th*, *ph* by the Modern Greek spirants χ, θ (= Eng. *th*), φ (= *f*), and the change from the soft aspirates *gh* and *bh*, which can still be proved to have existed in the earliest Italian period, into the Italian spirants *h* and *f* belonged to the same category (p. 422). Similarly by intermediate stages in the Romance languages *v* developes out of *p* (intermediate stage *b*) — Fr. *savoir* = *sapere* — in the Slavo-Lithuanian, *z* and *ž* out of *g* — ChSl. *zna-ti*, Lith. *žin-aú*, Indo-G. rt. *gna* 'recognize' (No. 135) the lispingly pronounced δ in Modern Greek, e.g. δέν = οὐδέν — and *d* in Danish, e.g. in the name *Madvig* — from the full medial. But if we are thus justified in expecting as a rule the transition from explosive to fricative sounds, and not the reverse, we may at the same time point out here, that there are important exceptions. One of the most widely-extended and important is the change of an original *v* into *g*, which we find in Greek dialects, and still more plainly in the Romance languages (Ital. *golpe* = *vulpes*). But we shall soon explain more in detail how this phonetic change is not immediate, but is brought about by a prefixed parasitic *g*, and thus through the intermedial step *gv*. If any one chose to compare the Homeric particle of comparison φή immediately with the stem of the reflexive pronoun ϝε, he might easily be brought to assume a direct transition from ϝ into φ, as Pott does, who compares φή with the Skt. *vā*, 'or' (ii[1]. 318). But the reflexive stem ϝε had
443 originally the form σϝε. The hard sibilant probably did not agree well with the soft labial spirant. Either it hardened the ϝ by assimilating influence into the aspirate φ[1]; thus arose the stem σφε in σφεῖς, σφέτερος, or it gave way before the ϝ, which, later on, being left defenceless, was weakened into the mere breathing: ϝε, ἑ. But as an initial σ, when followed by other consonants, sometimes, as was shown on p. 429, falls away, especially in the Laconian dialect: φαιρίδδειν = σφαιρίζειν, and in the dat. plur. of this very stem φί = σφί

[1] We noticed at No. 605 Fick's disagreement with this view.

(Ahrens 'Dor.' 109), σφε might thus also become φε, and the Homeric φή might come from σφή, identical with the Goth. *svê* 'as' (cp. No. 601). Here then the origination of the more forcible sound from the weaker is explained by the influence of juxtaposition, just as in Persian the combination *çv* becomes *çp*: Zd. *çpâ* = Skt. *çvā* (St. *çvan* for *kvan* No. 84). And the case is the same with the change of a ϝ into β before ρ, which is common in the Aeolic of Lesbos: βρή-τωρ for ϝρή-τωρ (No. 493). Here the dissimilating influence of the following liquid brings about the strengthening of the soft spirant. For the aversion of the Romans to the combination *vu* produced from the stem *ferv ferb-ui*, and perhaps it was the similar influence of a Gk. *o* which produced from the Graeco-Italic stem *vol* (Lat. *vol-o*) the Greek βολ (βούλομαι). All this has only been mentioned here in order to set aside hasty objections, and to prepare the way for further investigations. For it is just as important, in the sphere of sporadic changes, with which we are now dealing, to establish their main direction, as it is on the other hand to leave open the possibility of exceptions; although before admitting these we must require for them the evidence of special occasions and indubitable analogies. The task of the student of language in such questions is like that of the geographer. It is not enough to have discovered the general direction of a current in the sea; it is necessary to follow this out in its deviations, its shiftings, back-eddies and the like which are produced by special causes. But such deviations do not contradict, they rather confirm, the existence of this main direction. Other cases of the change of a continuous sound into an explosive we admitted on p. 425. In Latin, as in German, an *f* within a word has become a *b*. We endeavoured to explain this by supposing that *b* was in this case originally only the incompletely articulated beginning of an *f*. In the same way we ought to regard the Teutonic *d* as compared with the þ (Engl. *th*) of earlier stages in the languages. In Greek we may find ττ taking the place of σσ, and 444
even τ replacing a single σ, though both not without the conjecture that these *t*-sounds were by no means identical

in pronunciation with the ordinary ones in Greek. But the analogies of living languages are not wanting for these surprising assumptions. We must, however, in investigations of this kind avoid also the opposite error, that of admitting too readily changes which follow the general direction. Languages are inclined indeed to weakenings, but they can also avoid them: with all their changeableness, there is a great persistency shown in the history of languages. Hence nothing would be more perverse than to suppose that changes corresponding to the fundamental direction are to a certain extent to be expected everywhere, or that there is an unsteady fluctuation of such a nature that occasionally the stronger sound may, in some ramification or other of a root, change into the weaker. In this respect every language is to be regarded as an unbroken whole throughout, and even changes which are in themselves not improbable can only be proved to be facts by the evidence of undoubted instances.

After this digression we return to the several consonants. We had determined the natural relation of the explosive to the fricative sounds to be this, that the former are inclined to pass into the latter, but not the latter into the former. But how is it with the several subdivisions within these two classes? As to the explosives, it may be considered on the whole as an admitted fact that the tenuis is stronger than the medial. I may on this point refer to p. 420. The change of the tenuis into the medial, which we should for this reason expect, is thus also one of the most incontestable phenomena of language. The extent to which it is to be admitted in Greek will become apparent hereafter: but we may here point out some certain instances of it, as for example the derivation of *ἀρήγω* from rt. *ἀρκ*, *ἀλκ* (No. 7), that of *τήγ-ανο-ν* from the stem of *τήκω* (No. 231), that of the rt. *μιγ*, *μίσγω* by the side of Skt. *miç*, Lat. *misceo* (No. 474). The same change is familiar in Latin words like *vī-gintī* by the side of the Boeot. *ϝί-κατι* (No. 16), *neg-lego* for *nec-lego*, *publ-icu-s* compared with Old Lat. *popl-icu-s*, *quadra-ginta* by the side of *quattuor*, and in numerous Romance forms, like It. *lagrima* = *lacrima*, Fr. *abeille* = *apicula*, It. *lido* = *litus*. We must not, however, overlook the fact that in all the cases quoted and in

many others the softening takes place in the middle of the word, and is undoubtedly closely connected with the influences which the hard explosive sound experiences from the surrounding vowels, nasals, and liquids. (Cp. Corssen 'Beitr.' 53, 83, 445
i². 77, 126, 207.) The medial, inasmuch as, according to the statements of physiologists, it contains or can contain 'voice,' is from this very reason nearer to these sounds than the tenuis.

The relation of the Greek aspirate to the corresponding tenuis is at first sight less clear. We might be inclined to assume a χ, equivalent, as we saw, to $k+h$, to be stronger than k, and of course similarly for θ as compared with τ, and for φ as compared with π. But Sanskrit alone is sufficient to warn us to be cautious. Here, as has been already mentioned, the hard aspirate arises often in a time which can be historically demonstrated, from an earlier tenuis, e. g. that of *pra-tha-má-s* 'the first,' where the suffix is the same as that of the Latin *in-tu-mu-s*, *op-tu-mu-s*, and the *-ta-ma-s* preserved even in Sanskrit in many superlatives. In the same way we find in Greek κεφ-αλή by Skt. *kap-ála-s* and Lat. *cap-ut* (No. 54). We have already (p. 431) discussed the aspiration of a tenuis as a phonetic affection, and inasmuch as the strength of articulation betrays itself especially in the exclusion of all accompanying sound, the true view of this process will be to regard the addition of a thick breathing after the tenuis as a more incomplete, less pure and therefore weaker articulation. The tenuis cannot have been universally preserved quite in its original form, any more than the *a*; just as the *a* by fluctuations of the organs of articulation in the direction of the *u* and *i* passes into *o* and *e*, so we find this breathing sometimes as an attendant on the tenuis.

But there are changes not only in respect of quality and degree, but also in respect of the so-called organ, or, more correctly speaking, the place of articulation. Now is it possible to prove an order of succession also for the organs, as compared with each other, or does the relation of the gutturals to the labials and the dentals defy any such estimation according to the strength of articulation? It was certainly not by accident that the Indian grammarians placed the consonants in the order in which Sanskrit grammar still arranges them.

They put the gutturals first, and after them the remaining explosive and nasal sounds, in the order in which they are produced in the mouth, proceeding from the back forwards; i. e. gutturals, palatals, linguals, dentals, labials. And this order reappears in the class of the semi-vowels *j*, *r*, *l*, *v*, and in the sibilants *ç*, *sh*, *s*, until finally the list is closed by *h*, which belongs to no part of the mouth in particular. This order of the organs corresponds to the historical succession, in which the sounds
446 proceed from one another, at any rate in so far that we see the first class of the consonants, the gutturals, passing into the following classes, but not *vice versa*. Of course we do not assert that at a certain stage in the history of language there were only gutturals, and then by the side of them dentals, it may be, and so on. The question of priority, so stated, is absurd: nothing induces us to assume that at any time any one of the three main parts of the mouth, at which the gutturals, dentals, and labials are produced, was ever entirely unused. It is surprising that even a sober and cautious scholar like Heyse, in his 'System der Sprachwissenschaft' (p. 117 ff.) takes the trouble to draw up from this point of view a 'list of the order of the origination' of the consonants according to their organs. But we may certainly venture to assert that the gutturals, which are the hardest for children to pronounce, require the greatest force of articulation[1], and therefore, as laxity and ease of articulation increase in the course of the history of language, pass readily into the sounds belonging to other organs, but rarely if ever arise out of them; so that thus the direction of the change of organ is on the whole from the back forwards. The greater ease with which

[1] The fact, which Max Müller 'Lectures' ii. 164 quotes, that some Polynesian languages are entirely without gutturals, while the dentals are found everywhere, is quite in harmony with this view. — The disinclination of the Keltic languages to the *p* is remarkable. Cp. Nos. 214, 366, 367b, 371, 390, 392, 393, etc. No word has yet been adduced in which the two main divisions of this family retained in common the Indo-Germanic *p*. On the other hand a *p* appears often in the British branch in the place of an Indo-G. *k* (*qu*), as is shown under No. 624 ff. Cp. now Windisch 'Beitr.' viii. 1 ff., Rhys 'Rev. Celt.' ii. 321 ff., Stokes *ibid.* 408 ff.

dentals are pronounced as compared with the sounds of the other organs may be recognized sufficiently from the fact that they occur by far the most commonly in the formal elements of language, in the terminations of inflexion and word-formation, as also from the fact that almost the only groups of explosives which are found, are those in which the *second* consonant is a dental: *kt*, *gd*, *pt*, *bd*, etc., and the order is never reversed. We should also notice here the fact, to which Pott i[2]. 211 calls attention, that it is almost only dentals and labials which are found in the prepositions of the Indo-Germanic languages. Of course, when Pott adds the remark, that these seem to be the 'most primitive' sounds, we cannot follow him in this, nor think of such a thing for a moment. Are we really required to regard the pronominal and the numerous verbal roots of our linguistic stem, which contain a guttural, as less 'primitive?' Where is there the shadow of a proof of this? I rather take the circumstance adduced to mean that the dentals and the 447
labials were of less significance than the gutturals, and were therefore better adapted for that whole class of words of lighter stamp, so to speak: while the gutturals, which could only be brought out by a more forcible movement of the heavier back part of the tongue, which furnished more resistance, found their chief employment in the most significant part of the vocabulary. This fact is again the main reason why the dentals and labials are so much more numerous than the gutturals, as Förstemann 'Ztschr.' i. 169, ii. 37 shows with regard to Sanskrit, Greek, Latin, and Gothic. But the gutturals were in many ways driven out of the sphere which was originally their own, and replaced by their front-rank men. To take a few examples out of many. In Sanskrit many gutturals pass into palatals, with regard to which we may refer to p. 26; in Greek we find, in the same place, as we shall see more fully below, not unfrequently instead of these, labials: Skt. interrogative stem *ka*, Lat. *quo*, Gk. *πο* (only in New Ion. *κο*), rt. *ga* 'go,' Gk. *βα*; more rarely dentals: Skt. *kim*, Lat. *quid*, Gk. *τί*. The original *dh* is not uncommonly replaced by *f* in the Italian languages, and also by *b* in the middle of Latin words: Skt. *mádhjā* (fem.), Osc. *mefiu* (No. 469), Skt. *rudhirá-s*, Gk. *ἐρυθρό-ς*, Lat. *ruber*, Umbr. *rufru* (No. 306), a partial shifting

from the dental to the labial organ, and thus again in the forwards direction. Cp. Corssen i². 148 ff. The changes of the Lat. *c* and *g* before *e* and *i* in the Romance languages are produced in such a way that the guttural first becomes palatal, and then from this point gets shifted further forwards (Lepsius 'Das allgemeine linguistische Alphabet' p. 39). Precisely the same course is found in the case of the similar changes in the Lettic, Slavonic, Teutonic and numerous other languages, as is shown most fully by Schleicher 'Zur vergleichenden Sprachengeschichte.' It is true that in this sphere of what Schleicher calls Zetacism, to which we shall have hereafter to return, movements in another direction are not wholly wanting. There is especially a shifting, from the influence of contiguous sounds, both of a dental and occasionally of a labial into a palatal sibilant. Indeed in some dialects under particular conditions there is actually a change from *p* into *k*, as in the dialect of Naples under the influence of an *l* which has been softened to an *i*, e. g. *chiano*=*planus* (Wentrup 'Beiträge zur Kenntniss der neapolit. Mundart' Wittenb. 1855 p. 11, cp.
448 Diez i. 270)[1]. But cases of this kind belong, like zetacism generally, to the sphere of assimilation in the wider sense, and prove absolutely nothing against the main direction which we have asserted. The transference of a consonant from one point of articulation to another will, as a rule, have its main reason in such special influences of assimilation or dissimilation. Where there is such an essential change of the original sound we cannot possibly content ourselves with the assumption of degeneration or 'weathering away,' and hence we shall have to look about afterwards for adequate explanations of Greek linguistic processes of this kind. Here all that was necessary was to clear the way for our subsequent investigations by pointing out the prevalent direction of phonetic change[2].

[1] The change from *pt* to *kt* is found in Irish: *secht* (No. 337)=Skt. *saptán*, and also in borrowed words: *corcur*=*purpura*, *clum*=*pluma* ('Beitr.' viii. 116).

[2] With regard to the relation of the dental consonants to the labials, it is hard to prove any definite relation of priority between these classes. Ludw. Lange 'Ztschr. f. d. österr. Gymn.' 1863 p. 299

If we now proceed from the explosives to the fricatives, we shall find it easiest to recognize a well-established rule for the relation of the nasals to each other. The guttural nasal is a rare sound in all Indo-Germanic languages. It only occurs before other gutturals, and therefore it depends upon these, and can change into the nasal of another organ only when the explosive which follows it also changes its organ. Thus the *n* in the Lat. *vincere*, i. e. *vinkere*, is clearly guttural: in the Ital. *vincere* it is palatal, in the Provençal *vensser* (Diez 'Gr.' i. 235) it is dental. But the other nasals enjoy greater freedom. It is certainly generally the rule that, where *m* and *n* correspond, *m* is the older sound: and this is especially the case at the end of a word, where Greek *ν* corresponds so often to the primitive *m*: *δόμο-ν* = Skt. *damá-m*, Lat. *domu-m*. For the origin of this phonetic rule I may now be permitted to refer to what I have said in my paper 'Zu den Auslautsgesetzen des Griechischen' in the 'Stud.' x. 203 ff. We find the same phenomenon occasionally in German, e.g. *Faden* for the older *fadam* (Grimm 'Wörterb.' s. v.), regularly in Old Prussian (Bopp 'Die Sprache der alten Preussen' p. 11), and in Old Irish (e. g. *ech n-aile* = *equum alium*), and in two languages, which are still more closely related to Greek, the Albanian and the Messapian (G. Stier 'Hieronymi de Rada carmina italo-albanica' Brunsv. 1856 p. 56, Bopp 'Üb. das Albanesische' p. 4, 'Bulletino dell' Inst. arch.' 1859 p. 215). In the Romance languages this change is not confined to the end of a word: Fr. *rien* = *rem*, 449
It. *con* = *cum*; it appears sometimes also in other places: Fr. *natte* = *mappa*, Wall. *furnice* = *formica* (Diez i. 199 [Brachet 'Etymological Dictionary' s. v. *changer*]). The reverse transition also occurs in these languages, though more rarely: Span. *mueso* for *nuestro* (i. 203): and we can hardly deny its existence altogether in the earlier stage of language; so that a greater mobility must be generally ascribed to these more volatile sounds.

With regard to the two liquids *r* and *l* thus much is certain,

adduces several reasons in favour of the greater difficulty of the labials, which are well worth considering. But on the other hand the change of the dental aspirate at least into the labial is, as we shall see below, a fact which cannot be denied away.

that greater force is required for that vibration of the tongue, by which the 'trill' *r* is produced, than for that loose position of the same organ, in which *l* arises. Hence the priority of *r* over *l* is in numberless cases a recognized fact. Sanskrit very often preserves the more forcible sound in words, where the European languages prefer the softer *l* (Lottner 'Ztschr.' vii. 16 [Fick 'Indo-germanen Europas' pp. 201–261]), as e. g. in rt. *ruk̔*=Gk. λυκ, Lat. *luc* (No. 88), rt. *bhrāǵ*=Gk. φλεγ, Lat. *flag, fulg* (No. 161). For the same reason *r* is a much more common sound in Sanskrit than *l*, and is proportionally more frequent than it is in the two classical languages (Förstemann 'Ztschr.' ii. 39). The relation is less firmly established in modern languages. A Romance *l* often appears in the place of a Latin *r*, e. g. It. *pellegrino*=*peregrinus*, *Tivoli* =*Tibur*; but it is hardly less common to find *r* in the place of *l*: It. *rossignuolo* = *lusciniolus*, Fr. *apôtre* = *apostolus* (Diez i. 189, 207). For a later stage in language, therefore, *r* and *l* are almost equivalent, and the choice between the two often depends upon the influences of contiguous sounds: while, for an earlier stage, it is certain that *r* is the older sound. We are not, however, justified, as was noticed on p. 83, and as will be seen still more clearly from the more careful examination of the Greek sounds, in denying wholly to the period before the separation of languages the sound *l*.

It is more difficult to say what is the genetic relation of the spirants one to another. May we assume a transition of the sounds *j*, *s*, *v*, *h* into each other; and if so, how? It is certain that of these sounds the weakest is *h*, in those languages in which this character denotes the mere breathing, becoming fricative at no part of the mouth, and being thus the minimum of sound which falls within the sphere of language. Hence of the Indo-Germanic *j*, *s*, *v* there is often nothing left in Greek but the spiritus asper (Nos. 606–608, 598–605, 565, 566). The sibilation of a *j* plays an important part in the phenomena of
450 zetacism. But it is only the soft sibilant, denoted in French as in the Slavonic languages by *z*, which we can expect to find in the place of *j*: this letter hardly ever passes directly into the sharp, hard *s*. It would be still more unlikely that *j*

should pass into *v*[1]; and we should have to regard the appearance of a Greek *ϝ* in places, where we may presume an older *j* (*Τλασίᾱϝο*, *ϝότι* on inscriptions, cp. p. 396), as such a transition. But as adequate analogies can hardly be found for this[2], it will be safer to assume instead of a phonetic confusion, one which is merely graphic, i. e. an unsatisfactory and clumsy way of writing the *j*, which was still retained dialectically, but which could not be expressed by any character in use. It is not necessary to remind the reader how entirely improbable *a priori* is the change of an *s* or a spiritus asper into *ϝ*. From the earliest period of the Hellenic language, of which we have any knowledge, the digamma is found to be disappearing. How can we conceive of it taking the place of sounds so common as *s* and the spiritus asper?

But finally, the various classes of the fricatives have their points of mutual contact. Thus there is an interchange between the liquid *l*, and that one of the nasals which is the most nearly related to it, i. e. *n*, in which it is not very easy to determine from a general standpoint the question of priority. With respect to Greek in no inconsiderable number of words in the Doric dialect (Ahrens 'Dor.' 110) λ before τ or θ (Lacon. σ) passes into ν; *φίν-τατο-ς* = *φίλτατος*, *ἐνθεῖν* = *ἐλθεῖν*, a phenomenon which we may safely regard as a rare kind of assimilation, for these dental explosives come nearer to the dental nasal than to *l*, the sound of which is produced at the edges of the tongue. Bugge 'Ztschr.' xx. 43 attempts to prove the reverse transition to a wider extent. But I know no certain example of it from Greek, except the form *λίτρο-ν* for *νίτρο-ν*, recommended by the Atticists (cp. Lobeck 'Phryn.' p. 305) and prevalent in Herodotus [cp. Bähr[2] on ii. 86]. But this is certainly borrowed and corresponds to the Hebr. *neter* (Benf. ii. 57). The doubt of A. Müller in

[1] The *reverse* change from *v* into *j* occurs in Wallachian: *jinu* = *vinum* (Diez i. 350).

[2] I cannot be satisfied even by what Usener collects, 'Fleckeisen's Jahrb.' 1865 p. 233 note. For after all it is merely a conjecture that *ἀβά* 'tribus' (cp. p. 207) is from **vas-jā*. How easy it is to suppose that some other root or some other suffix (**vas-vā*?) occurs here!

Bezzenberger's 'Beitr.' i. 294 refers, as it seems, only to the original Semitic character of the word. Cp. also Vaníček's 'Fremdwörter' p. 36. There is also λίκνον 'a winnowing
451 fan,' which is discussed more fully by Bugge 'Stud.' iv. 335. The Lithuanian *nëkóti* 'to toss corn in a winnow,' makes it probable that the forms occurring in Hesych. νίκλον· τὸ λίκνον, νεῖκλον· τὸ λίκνον, νίκειν· λικμᾶν, νεκητήρ (M. Schmidt νεικλητήρ)· λικμητήρ, Μεγαρεῖς, give the original initial letter of the root, which was possibly dissimilated to λ in λίκνον, λικμό-ς 'winnow,' under the influence of the following nasal. Cp. Fick i³. 651. The isolated glosses of Hesych. Ἐλιπεύς · ὁ Ἐνιπεὺς ποταμός, φίλαξ· δρῦς νέος Ἠλεῖοι beside φίνακα · δρῦν, to which H. W. Roscher has called my attention, are not clear enough to enable us to decide which sound in the dialectical variation is the older. The conjecture of Fick i³. 825 that the Thessalian ἀστραλό-ς (No. 521) quite corresponds to the equivalent Lat. *sturnu-s* has no great probability, considering how favourite a suffix -λο is. The form ἄλλο-ς, which generally used to be compared with Skt. *anjá-s*, and which has an *l* in three other groups of speech, was taken by us otherwise (No. 524: cp. Schleicher 'Comp.⁴' 218 note 2). Other words quoted by Christ p. 98 (cp. Leo Meyer 'Vgl. Gr.' i. 65) are partly very doubtful, partly, e.g. μέλλειν No. 466, explained by us otherwise, and, as I believe, more probably. πλεύμων by the side of πνεύμων holds an exceptional position, because we have to do with the letters πν, which do not occur elsewhere. We discussed it under No. 370. Leo Meyer in Bezzenberger's 'Beitr.' ii. 106, in spite of this, chooses to regard the transition from *n* into *l* as an admitted fact, and bases upon this his conjecture that Lat. *elementum*, which we explained otherwise under No. 523 b, corresponds to the Skt. *aṇ-i-mán* 'thinness' (of the air), 'small part' (cp. *aṇú-s* 'fine,' 'small'). In the Romance languages there is abundant evidence for the change in both directions. The change from *n* to *l* seems somewhat the more common, but it is connected with the tendency to dissimilation: Ital. *Bologna* = *Bononia*, *veleno* = *venenum*; but the reverse is also fully established, Provenç. *namela* 'blade' = *lamella* (Diez i. 203, 190). In these languages the sounds *r*, *l*, *n* are generally the

most mutable of all, so that even *r* occasionally takes the place of *n* (Span. *hombre*=*hominem*, Fr. *timbre*=*tympanum*), though the converse is rare (Diez i. 203, 208). On the whole, we might be inclined to ascribe to the nasal a stronger articulation than to the liquid, inasmuch as it is more closely connected than the latter with a definite place in the organ of speech. However, the interchange between a nasal and a liquid does not come into consideration for the questions which we have here to discuss. It is true that, after Ebel 'Ztschr.' iv. 338, for the first time, so far as I know, and not without doubt, had suggested the possibility of the transition from *n* to *r*, Benfey 'Ztschr.' vii. 120, and especially 'Orient und Occident' i. 287, treated the sounds *n* and *r* as if they 452
were as good as identical, and employed this assumption to derive numerous suffixes with *r* from suffixes with *n*. But this only shows very plainly how rotten is the phonetic foundation which supports the theory of 'theme-formation,' and of suffix-mutilation, rejected by us on p. 74. For we do not need such a transition for these suffixes, if we recognize an original variety; and in stem-syllables there is not a single instance in which the change of *n* into *r* may be proved[1].

[1] Nothing has been brought forward recently to make probable this phonetic change, often as it has been defended. Leo Meyer 'Vgl. Gr.' ii. 126 quotes the Romance transition from *n* into *r*, referred to above. But according to Diez this is common only in the case of certain groups of consonants, which like *cn* (Fr. *diacre*=*diaconus*), *dn* (*Londres*, *ordre*) would be otherwise hard to pronounce, and we can see how much we have to do here with carelessly articulated sounds, from the fact that the converse change also occurs (Wallach. *suspina*=*suspirare*). Schweizer 'Ztschr.' xii. 301 appeals to the Swiss *niemer*=*niemand* and the South German *mer*=*man*. But the same explanation applies to this final *r*, which has but a weak sound here, and this would at any rate prove nothing for a letter in the middle of a word. Sonne, an opponent of the participial theory, assumes for the forms of the 3 plur. act. Zend in *-are*, a derivation from *ars*=*ans*, *ant* ('Ztschr.' xii. 288). If this view were correct (cp. Spiegel 'Beitr.' ii. 23, Kuhn iv. 211), though this seems to me very doubtful, after the remarks of Schleicher ('Comp.[3]' p. 666), this would only be an example of a single group of letters, and further one derived from an entirely different region of language. We are therefore

As to the relation of the sibilant *s* to *r*, we must ascribe to the sharp *s*, which is produced with a steady tongue against the upper row of teeth, an unqualified precedence over the trill. It is therefore a recognized fact in the history of language that where there is a change between *s* and *r* the priority belongs to the *s* (Pott i[1]. 131, Diez 'Vergl. Gr.' i. 222). The converse transition, that of an *r* within a word to a soft *s* (*z*), e.g. *pèze* = *père*, has been established from French dialects of the sixteenth century (Joret 'Mémoires' iii. 155). In Greek and Latin it does not come into consideration. The 'Zitterlaut' [trill], as Brücke calls it, can be produced at different places in the mouth, especially either at the back of the palate, or with the point of the tongue at the root of the upper row of teeth. We may probably assume that it is only the latter sound, described by Brücke[2] p. 58, which can originate immediately in the dental sibilant, inasmuch as it closely approximates to the place of its articulation. Hence Corssen i[2]. 238 justly deduces from the frequent origination
453 of a Latin *r* from an earlier *s* the more dental pronunciation of the former sound, and he properly connects with this the change from *d* to *r* in the same family of speech, which may be compared with respect to the place of articulation. The Teutonic change of these sounds may best be compared with the Italian. In both families it is found especially in the middle of a word between two vowels, but also at the end. It seems to be quite unknown at the beginning.

With the Greeks, it is only in a few dialects that σ passes into ρ. The discovery of inscriptions has made not unimportant new contributions to our knowledge of this. We now know of two kinds of rhotacism. The one attacks only a sigma between two vowels within a word, and has been established by an inscription from Eretria, ascribed to the fourth century B.C. and published first by Eustratiades in the Ἀρχαιολογικὴ Ἐφημερίς Περ. β, τεῦχος ιέ (1872) No. 417. This rhotacism therefore corresponds to the Latin, but with the difference that it does not, as with the Romans, attack

by no means justified in assuming such a change for the time before the separation of languages, to which we can by no means ascribe such lax articulation.

an original σ, but so far as we see at present only one of later origin: ὀπόραι = ὀπόσαι, ἄρχουριν = ἄρχουσιν, ὀμνυούρας, παραβαίνωριν. — The second kind conversely shows itself especially at the end of a word: τίρ = τίς (Laconian), but never in the middle of a word between vowels, but only before consonants. Elic κορμῆται = κοσμῆται (cp. *car-men* for *cas-men* Corssen 'Beitr.' 406). The sphere of this second rhotacism is Elis and Laconia. In Elis we can now trace in inscriptions the spread of the ρ. The ancient ϝράτρα (C. I. No. 11) shows the forms τοῖς and τοῖρ, τὶς and τὶρ side by side, the older forms before vowels, and at the end of a division, the later before consonants. The inscription of seven lines from Olympia, published by Kirchhoff in the 'Archaeol. Ztg.' Jahrg. 35 p. 197 shows τὶς only before a following σ (αἰ δέ τις συλᾷ), but τοῖρ Χαλαδρίοιρ καὶ. . . . The inscription of Damokrates ('Archaeol. Ztg.' 1876 p. 183 ff.) from the time after Alexander, changes every final σ into ρ. Perhaps we may explain from similar conditions of the change in Laconia the surprising fact that no grammarian mentions it among the peculiarities of the Laconian dialect, and yet a considerable number of glosses in Hesychius leave no doubt as to its occurrence in Laconia. The great majority of these glosses, enumerated by Ahrens 'Dor.' 71 ff. show the ρ at the end of a word[1]. We find the same in a solitary example in Aristophanes ('Lysistr.' 988 παλεόρ γα). If we suppose that the Laconians changed ς into ρ only when final, 454
and before certain initial consonants, but elsewhere left it unaltered, we have an explanation on the one hand of the silence of the grammarians, who took as little notice of such a change as of ἐμ παντί, ἐγ καιρῷ and the like, and on the other hand of the Hesychian glosses, which may have been extracted by a gloss-writer from Laconian texts without noticing, or at any rate without paying any attention to, the context in each case. Even in Laconia rhotacism is decidedly a product of later times. This second rhotacism, which is to be carefully distinguished from the Italian, finds a certain analogy

[1] Mor. Schmidt 'Ztschr.' x. 206 proves that the change of σ into ρ in the middle of a word is not at all surely established for the Laconian dialect.

in the conditions under which a final *s* in Sanskrit passes into *r*, though these again are much more limited, and differ in many respects. But we cannot fail to see that the difference in the facts points to different natural causes, and consequently for the local dialects[1] which have this second rhotacism, to a relation between σ and ρ entirely different from the Italian. Of another Italian characteristic, i. e. the connexion between the *r* and the *d*, we cannot find the slightest trace in Greek, while the breathing, with which initial ρ was written[2], essentially distinguishes the Greek trill from the Italian. Perhaps it is probable from these facts that the Greek ρ, at any rate in the majority of dialects, was produced further back in the mouth, a view to which Kuhn 'Ztschr.' iv. 31 was also led by his investigations 'on the phonetic developements connected with *s*.' But in any case we may distrust all etymologies of ordinary Greek words which are based upon this change, a point upon which Pott ('Personennamen' p. 29) has justly again laid stress. But etymologies are still always being proposed, resting upon this assumption, and indeed the converse transition from ρ to σ is not wholly unheard of. On this rests O. Müller's explanation of Πελασγοί from rt. πελ and ἄργος, but although, apart from this, the ϝ preserved in the El. ϝάργον, Lacon. βέργον disproves this etymology in the case of so old a word, it still finds supporters.

455 The other changes of a continuous sound into one of another class are reduced to the sporadic representation of ϝ by ρ and the interchange between ϝ and μ. The former substitution is limited to the Cretan dialect, and is indeed really established by only one certain instance, i. e. τρέ· σέ Κρῆτες (Hesych.), where τρέ has originated from τϝε (Ahr. 'Dor.' 51, above p. 77). How little authority there really is for δεδροικώς, which is commonly said to be for δεδϝοικώς, may be

[1] We may add the isolated Theraic ΟΥΡΟΡΑΘΑΝΑΙΑΣ (Weil 'Mittheilungen d. deutschen arch. Instituts in Athen.' ii. 77).

[2] There is a remarkable anticipation of the later way of writing the letters, established by the grammarians, in ΡΗΟϝΑΙΣΙ on the old inscription of Arniadas of Korkyra, discussed by Ross, 'Jahn's Jahrb.' vol. lxix. p. 544,—so far as I know the only one. It is true that here the breathing follows the *r*, after the Latin fashion: *Rhodus*.

seen from M. Schmidt's Hesychius. The MS. has δεδροικώς· δοικώς[1]. I conjectured on No. 572 that the curious ῥίγα· σιώπα, derived from the same source, by the side of ἴγα· σιώπα Κύπριοι, was to be traced back to σριγα, σϝιγα, and so reconciled with the ordinary Greek σίγα. The influence of a dental in juxtaposition is certainly to be taken into account in such cases, and a wider conclusion as to the affinity of the sounds ϝ and ρ must not be based upon them. Kuhn 'Ztschr.' xv. 320 adduces Teutonic examples of *r* for *v*. Ferrar 'Comparative Grammar' i. 12 regards the ρ here as the interlabial trill, which certainly could easily originate in the labial aspirate. Grassmann ('Ztschr.' ix. 8) well connects the change of the ϝ into ρ with the transition of the same spirant into *l*, which is unmistakeable in some Slavo-Lettish words (cp. above No. 252). Still we cannot follow him in assuming the gradual intermixture of an *r* with *v*, and unpronounceable roots like *dhvran*. L. Havet ('Mém.' ii. 317) takes the *r* to be due to a mistake of the grammarians, who, in reading the word, took the character ϝ for Ρ, in which case we should have to assume ϝ in all the cases. But though Γ and Τ, both of which in Hes. stand for a mis-read ϝ, do come near the digamma in form, Ρ 456

[1] The view of the same scholar that the ρ was sometimes inserted in the Cretan dialect, as in Fr. *perdrix*=*perdix* (Diez i. 439) cannot be considered proved by the few and (in part) extremely uncertain glosses, which he quotes on behalf of it 'Ztschr.' xii. 214. Among these one is: ἄτρεγκτος· ἄβροχος, i. e. ἀ-τεγκ-το-ς, in which we cannot fail to see that τρ again corresponds to an Indo-Germ. *tv*, for at No. 234 we connected τέγγω with Goth. *thvaha*. But further the view that these glosses are Cretan is by no means established to the satisfaction of every one. (Cp. Rödiger 'Ztschr.' xvii. 314.) — A 'parasitic' *r* springing up after dentals, and gradually turning them into linguals, is conjectured also by J. for the Indian languages ('Or. u. Occ.' iii. 383) with the approval of Benfey. The latter 'On some Plural-forms' Gött. 1867 p. 15 actually makes an *r* 'hang on' (*anschiessen*) to an *n*, probably only a new and not very gentle way of saving the assumption of the change of an *n* into *r* mentioned on p. 452. How little the Greeks at any rate liked this 'hanging on' is shown by ἀν-δ-ρ-ός, cp. Fr. *cendre*=*cinerem*. But besides, it is really too much to ask us to believe in this.

does not. In Latin, some examples of *cv* changing into *cr* have been assumed (Grassmann 13); but some of these may be otherwise explained, and some need more thorough investigation after what Corssen 'Beitr.' 408 has said on the other side.

The relation of the two labial consonants μ and ϝ will have to be discussed below. It would hardly be possible to establish any physical reason for the priority of either.

(A) Sporadic transformations of explosive sounds.

Now that we have been led by the preceding considerations to a common foundation for all sporadic transformations of sound, and have obtained a general view of the direction they take, we proceed to examine the changes in detail. In so doing we naturally start with those consonants which may be regarded as the most essential and significant elements of language. These are the explosive sounds, commonly called mutes. Of these again the tenuis must universally rank first and the medial and aspirate follow.

As we have seen, of all this class of consonants the gutturals are exposed to the most disfigurations. We have now to ascertain the extent and direction of their sporadic transformations in Greek. First we will examine the change of gutturals into labials, which may be aptly called Labialism.

1. Labialism.

One of the earliest observations of comparative grammar was to the effect that several languages frequently show a *p* for an original *k* which is often represented in Sanskrit by *ḱ*, and the labial media *b* for a *g* and its Indian representative *ǵ*. The facts themselves are, however, not enough; we must try and find the origin of a phenomenon at first sight so surprising. Lepsius was, as far as I know, the first to attempt to account for it. In his 'Sprachvergleichende Abhandlungen' p. 99 he arrives from an original *k* at *p* by the intermediate
457 steps *kv*, *kp*. But *kp*, as Pott has already objected against Lepsius ('Zählmethode' p. 176 n.), is too harsh a group of

sounds, and moreover never occurs in any simple Indo-Germanic word at all, and we cannot imagine its existence in the primitive Indo-Germanic tongue, especially at the beginning of a word. But as we see, in the case of *du*, *bellum*, and *bonus*, and *bis* springing from the Old-Latin *duellum* and *duonus* and the assumable *duis*[1], *kv* will serve well enough as the intermediate step between *k* and *p*. For *kv* is to *p* as *du* is to *b*. The labial spirant *v* affected a preceding *k* or *g* in such a way that these letters moved from the guttural organ to the lips, but on becoming *pv* and *bv* they expelled the spirants themselves, and simple *p* and *b* were left. We find a striking analogy in the Sardinian dialect of Italian in which, as is alleged by Stier 'Ztschr.' xii. 156, and Delius 'Der sardinische Dialekt des 13. Jahrhunderts' Bonn 1864, the Lat. *quattuor* becomes—with softening of the tenuis to the medial —*battor*, *aqua abba*, *quinque quimbe*, *guardare bardare*, and *lingua limba*. Abundant instances of other kinds are given by Ascoli, whose comprehensive treatment of labialism 'Fonol.' p. 58 ff. (Germ. transl. p. 49 ff.) may here be referred to. The intermediate step above assumed may in many cases be actually seen:—often in Latin, occasionally, though perhaps not in its integrity, in Sanskrit and Lithuanian. To start with the latter case, it is clear that *ἵππο-ς* with the by-form *ἵκκο-ς* are to be compared directly with *equo-s*, and consequently that *ππ* and *κκ*, the result of assimilation, are here the representatives of *kv*. To this same *kv* we are brought by the Skt. *áç-va-s* and the Lith. fem. *asz-và* ('mare' = Skt. *áçvā*), so that *aḳ-va-s* is here firmly established as the primary form. Moreover etymology confirms the view that the *k* was primitive; for it is very probable that the root of the primitive name of the horse, which is preserved also in the Old-Sax. *ëhu*, is *aḳ* 'to be swift,' 'keen' (No. 2, cp. Pott. W. i. 525). We remain true then to our method of using what is clear to help us to the knowledge of what is not easily discernible, in pronouncing a Greek *π*, where it is confronted by an older *k*, to be in all cases the product of a pre-Hellenic *kv*. The circumstance that

[1] Ascoli well compares ('Fon.' Germ. Trans. 59) the provincial German *eppes*—*etwas*.

Latin has as a rule preserved this group of sounds in the form of *qu*, whereas Umbrian and Oscan as well as Greek in the majority of its dialects adopt the labial, inclines us to the belief that the *kv* belongs in such cases to the Graeco-Italic period.

458 In the example just discussed the *v* appears in several languages as a fully developed sound standing by the side of a guttural. In all other cases the same *v* appears as a subsequent addition to the simple *k*. For instance, the Lat. *quo*= Goth. *hva* of the interrogative stem is represented in Skt. by *ka*. We have however here to deal with the *k* which on p. 87 we saw must be distinguished from *ḳ*, and which we thought we could define as a sound made right at the back of the palate. Various attempts had previously been made by different scholars to prove that the labial parasite of this *k* was a primitive sound. Since Fick's important investigations it seems to have become the generally accepted view that it is to this *k* alone, a sound now recognized as fundamentally distinct from *ḳ*, to which we can attribute the tendency to produce after it the sound in question, a tendency which out of *k* in Latin produced in many instances a *kv* (*qu*), in Teutonic *hv* (later *w* alone), in most Greek dialects and also in Umbrian and Oscan—through a preliminary κϝ—a π, while the remaining languages, like the later Ionic with its κ in the interrogative stem (κῶς, κότερος), kept the simple guttural. In the place of the latter the palatal *ḱ* is of specially frequent occurrence in Sanskrit and Zend. The language which shows the closest resemblance to the Greek and Umbrian and Oscan is the British branch of the Keltic family with its late developement of a *p*: e.g. Cymr. *puy* 'quis,' *petguar* 'four,' while Old-Irish has abandoned the labial parasite and reinstated the guttural in its integrity: e.g. *cia* 'quis,' *cethir* 'four' (cp. Windisch 'Beitr.' viii. 25). Thus regarded the whole phenomenon ceases to look fortuitous or capricious. Our reason for classing the production by a guttural of a labial among the sporadic sound-changes is this, that Greek by no means exhibits a π in *all* the words for which we must assume an old *k*. For example the κ of ἔ-λακ-ο-ν, λέλᾱκα (No. 85) is shown by the Lat. *loqu-o-r* to be the *k* which has a tendency to

labialism, but the tendency has in this root produced no result in Greek. The same may be said of *καπ-ύ-ω*, *καπ-νό-ς* (No. 36) by the side of the Lith. *kvap-a-s* and the Lat. *vap-or* (for **cvap-or*) and of many other words besides. The same want of uniformity is to be seen in the British Keltic.

I think it is beyond a doubt that the same explanation applies to the change of *g* into *β*. The Lat. *ve-n-io* (No. 634) bears to the rt. *gā*, the same relation that *vap-or* bears to the rt. *kap*: it clearly points to a * *gven-io*. The change of *gv* to *b*, corresponding to that of *kv* to *b*, occurs in the Umbrian *ben-ust* and the Greek *βαίνω*. In the case of the medial the labialism is confined to a still smaller number of stems. The antiquity of the parasitic labial is attested here too by many Teutonic words: e. g. by the OHG. *quillu*=*βάλλω* (No. 637) 459
quiu-s=*vī-vu-s*, cp. *βί(ϝ)-ο-ς* (No. 640), as well as by the Keltic *b*, which occurs e. g. in the OIr. *biu*=*vīvu-s*, and in the OIr. *bó*=*βοῦ-ς*, Lat. *bō-s*.

It is remarkable, as Hugo Weber points out ('Etym. Unters.' i. p. 3), that the majority of instances of Greek labialism are never found at the beginning of a word except before a vowel, and never in the middle of a word except at the end of roots which were originally immediately followed by a vowel, that is, in cases in which the assumed *kv*, *gv* were easily pronounceable. Accordingly there will be no need to assume sound-formations like *kvr*, *gvl*. The only exception is *βρέφος* No. 645, in which case however it is not a far-fetched assumption that it arose by metathesis from **βερφος* (cp. *κράτος* by the side of *κάρτος*). A similar exception is to be found in the OIr. *broo*, *bró* 'mill-stone,' gen. *broon*, *brón*, by the side of the Skt. *grā́van* 'stone used for pressing out the Soma-juice,' but here too, no doubt, *gar* was the real form of the root. On the other hand the recognition of this view casts suspicion *a priori* on many more venturesome hypotheses; e. g. that combated by me 'Ztschr.' iii. 415 as to the comparison of *πράσσω* with the Skt. *krī*. We will now proceed to the cases in which we believe we can with certainty set down a Greek *π* as the representative of an Indo-Germanic *k*.

A.

A Greek *π* corresponds in the following cases to an Indo-Germanic *k*, which is frequently represented by *p* also in Umbrian, Oscan, and Brito-Keltic, by *qu* in Latin, not seldom by *hv* in Teutonic.

620. Root *ϝεπ* call, say, aor. *ἔ-(ϝ)ειπ-ο-ν*, *εἶπ-ο-ν*, *ἔπ-ος* word, verse, *ὄψ* (st. *ὀπ*) voice, *ἐν-οπ-ή* a cry, noise.
Skt. rt. *vak* (*ví-vak-mi*, *vak-mi*) say, speak, *vák-as* word, song, *vāk* speech, voice, *vāk-ja-m* utterance, speech, *vak-ana-m* recitation. — Zd. *vac* (m.), *vac-anh* (n.) word.
Lat. *vox* (st. *vōc*), *vŏc-ā-re*, *con-vīc-iu-m*, *prae-(vi)c-o*.
OHG. *wah-an* (pret. *ga-wuog*), *ga-wah-anjan* mention (Germ. *erwähnen*), *gi-wah-t* mentio.
OPruss. *en-wak-ê-mai* invocamus, ChSl. *vyk-anije* clamor, Serv. *vik-a-ti* vociferari.
OIr. *iarma-foich* quaerit, *iar-fact* quaesivit, *iar-faigid* quaestio.

Bopp 'Gl.,' Pott W. iii. 268, Windisch 'Beitr.' viii. 444, Van. 858 ff. — Sonne 'Epilegomena' p. 59 and Ebel 'Ztschr.' ii. 46 discuss the agreement of the reduplicated aor. which is contracted from *ἐ-ϝε-ϝεπ-ο-ν* with the Skt. form *a-vōk-a-m* which arose out of *a-va-vak-a-m*. — On the *ϝ* in *ϝείπην* (perhaps more correctly *ϝήπην* Ahr.
460 'Aeol.' 90) and *ϝέπος*, Ahr. 'Aeol.' 31, 171, 226, and *ὄσσα*, in which there is nothing to preclude a *ϝ*, Knös 82 ff. — *εὐρύ-οπα* as the 'far-resounding' (cp. *Κρονίδαν βαρυ-όπ-α-ν* Pind. 'Pyth.' vi. 24) is plausibly referred here by Döderlein 'Gl.' 509, Goebel 'Ztschr. f. österr. G.' ix. 783. — The old guttural which was protected by the *j* is discernible in *ὄσσα* for *ὀκ-ja*, which is a fem. corresponding to the Skt. neut. *vāk-ja-m* of like meaning, perhaps too in *Ἴ-ακχ-ο-ς* for *ϝι-ϝακχ-ο-ς* by the side of *Βάκχο-ς*, if the god is named from the shouts and cries uttered at his festivals. — Even after Corssen's objections ('Beitr.' 18, i². 482) I think Fleckeisen is probably right in connecting the Lat. *in-vītare* and explaining it to be for *invic-i-tare*, *invictare* ('Rhein. Mus.' viii. 221). Cp. note to No. 17 and Jahn's 'Jahrb.' 1865 p. 126. [But cp. Nettleship 'Journal of Philology' v. 20.] On the other hand Corssen p. 72, ii². 360 makes it probable that *con-vīciu-m* and not, as Fl. assumed, *convītium* is the best authenticated spelling. In this case we must with C. assume a rt. *vec* as well as *voc* (cp. *votare* by

the side of *vetare*), and derive thence *con-vēc-iu-m*, like *con-lēg-ium*, and thence *convīcium* (cp. *delīnio* by the side of *lēnio*). From this form of the root again (i.e. *veo*) we must derive the above-mentioned **invicitare* to which *invītare* was referred. — According to Stokes 'Rem.[2]' p. 39 another word which belongs here is *duacthar* 'loquitur' 'Ml.' 51[c], for *du-facthar* (?). — There is no connexion whatever with the rt. σε (No. 6 2).

621. Root ἑπ (for σεπ) — ἕπ-ω (ἀμφι — ἐφ — μεθ' — δι), aor. ἔ-σπ-ο-ν am busied about something, ἕπ-ο-μαι follow, aor. ἐ-σπ-ό-μην, ἑπ-έ-τη-ς attendant, ὅπ-λο-ν implement.

Skt. rt. *sak* (*sák-a-tē*, *sí-shak-ti*) be together, follow, *sap* (*sáp-ā-mi*) fasten to, concern oneself about, strive after, *sak-i-va-s* companion.

Lat. *sequ-o-r*, *sec-u-ndu-s*, *ad-sec-la*, *sec-to-r*, *pedis-sequa*, *soc-iu-s*.

Lith. *sek-ù* (inf. *sék-ti*) follow, come after.

OIr. *do-seich* sequitur, subj. dep. *airesechethar* ut sequatur, *sechem* secutio, sequi, *sochuide* societas, copia.

Bopp 'Gl.' s. v. *sak* and *sap*, Benf. i. 430, ii. 356, Pott W. iii. 304. — On the developement of the meaning in Skt. Grassmann 'Lex.' under *sak*. Cp. Delbrück 'Abl. Loc. Instr.' p. 55. For Greek the relation of the meanings of ἐφέπω and ἕπομαι is instructive. ἕπομαι has originally, and in Homer exclusively, the meaning 'accompany,' whence ἅμ' ἕπεσθαι, not 'come *afterwards*,' and this confutes the attempt to explain ἕπονται A 424 by 'will follow,' and also Buttmann's explanation of ὁπλότερος as 'the younger' ('Lexil.' ii. 126). On the other hand the primary meaning justifies the comparison of ὅπ-λο-ν which originally meant not 'weapon' but 'implement' and can hardly have anything to do with the Goth. *vêpna* (n. plur.), OHG. *wâfan*. — The Lith. *sek-ù* has moreover this special point of resemblance with the Lat. *sequor* that it also takes the acc. (Schleicher 'Lit. Gr.' p. 262). The same construction is given for the Skt. *sak* and *sap*. In the earlier writers ἕπομαι takes the acc. perhaps only in Pind. 'Nem.' x. 37, and there with a special meaning. — Just as the original σ is still retained in ἔ-σπ-ο-ν ἐ-σπ-ό-μην ('Gk. Verb' p. 294), so perhaps the Hom. ἀ-οσση-τήρ 'helper' may be regarded as one of those forms which preserve the effect of the original κ in the σσ. 461
In that case it would stand for ἀ-σοκjη-τηρ. Hesych. gives the by-forms ἐοσσητήρ, ὀσσητήρ = βοηθός, ἐπίκουρος. — Windisch in Kuhn's 'Beitr.'

viii. 25 distinctly denies that in Skt. *p* arose from *k*, so that we must assume *sak* and *sap* to be 'a pair of roots with different determinatives.' — The Ir. *saigim* 'adeo' connected with this root by Ebel 'Beitr.' ii. 165 and the Goth. *sôkja* must alike be separated from this root.

622. ἧπαρ. — Skt. *jakṛt* (n.) — Lat. *jecur*. — Lett. *ak-ni-s* liver.

Bopp 'Gl.,' Pott i². 113. — The *k* which is attested by three languages is represented by a π only in Greek. I take ἧπαρτ = *jakart* as the Gk. stem, and assume that ἧπατ the primary form of the remaining cases has lost a ρ, just like ποτί for προτί. Cp. No. 626. The root is to be found in the syllable *jak*. Hence with a different suffix is formed the Skt. *jak-an*, the basis of the oblique cases. In the Lat. *jec-in-or-is* we get the *n*- and *r*- suffixes combined, while the Lett. form shows only *n*. — For an answer to Kuhn's explanation ('Ztschr.' i. 379, ii. 141 ff.), which is different, see Sonne 'Ztschr.' xii. 294, and Fick. i³. 729.

623. Root ἰπ ἴπ-το-μαι hurt, ἴψ (st. ἰπ) a noxious worm, ἶπ-ο-ς a wooden bat (in a mouse-trap), fuller's press.
Lat. *ic-o, ic-tu-s*.

Sonne 'Epilegomena' 51 ff. — Hesych. gives the active forms ἴψαι, ἴψας. From among many doubtful conjectures we may select as almost certain that of the original identity of ἴξ and ἴψ (the name of noxious worms), of which the former would thus be the older of the two. Probably too ἴπ-νη 'woodpecker' is related, so that the primary meaning of the root is 'hit.' Van. 82 connects also ἰκ-τῖ-νο-ς 'falcon,' which would furnish another instance of the original κ, as does possibly ἴκ-ρι-α 'boarding,' 'scaffolding,' 'deck,' the proper names Ἴκ-αρο-ς, Ἰκ-μάλιο-ς (τέκτων τ 57), ἴκταρ 'near,' cp. p. 115, and finally the Cyprian ἰκμαμένος 'wounded' ('Tablet of Idalion' l. 4), according to Ahrens's probable explanation ('Philol.' xxxv. 36). Since ἶπ-ο-ς meant on the one hand 'wooden bat,' 'mousetrap,' on the other τὸ τῶν κναφέων ἐργαλεῖον (Pollux vii. 41) it comes in very well here. Derived from the latter meaning again, as Pollux rightly remarked, is ἰποῦσθαι = ἀποθλίβεσθαι, πιέζεσθαι It is possible too that ἐν-ίσσω = ἐν-ικ-jω (by-form ἐνίπτω) along with ἐν-ἰπ-απ-ο-ν, ἐν-ἐν-ἶπ-ο-ν (cp. ἐν-ἶπ-ή) belongs here; it would thus properly mean 'drive at,' 'hit at' (cp. ἐπιπλήσσειν, ἐμπλήσσειν). To explain ἰπ-απ-ο-ν however we must assume ἰαπ as a by-form to ἰπ ('Gk. Verb' p. 292). — Savelsberg 'De Digammo p. 46 agrees with the 'E. M.' in connecting the name of the river Ἐνιπεύς with this verb, but he takes the verb quite differently, and is

perhaps right in holding the Scholiast's reading in Pind. 'Ol.' xi. 72 Ἐνικεύς (var. lect. Νικεύς) to be the older one, connecting it with ἐνίσσω, especially as Ἐνισεύς is also found. — I cannot agree with Fick 'Bezzenb. Beitr.' i. 59 in holding that this rt. *ik* has any connexion with the Skt. *aç* (No. 2), a supposition that would oblige us to separate it entirely from the rt. *ip*. Cp. the note on No. 24 b.

624. *ἵππο-ς* horse, *ἱππότα* horseman, *ἵππ-ιο-ς* pertaining to horses. — Skt. *áçva-s* (Zend. *açpô*) horse, *açva-* 462
tará-s mule, *áçvja-s* = *ἵππιο-ς* (Zend. *açpya*). — Lat. *equu-s*, *equa*, *eque(t)-s*, *equitare*. — OSax. *ëhu* horse. — Lith. *aszvà* mare, *aszu-ta-í* horse-hair. — OIr. *ech* equus, *echai e* mulio, *Epo-rêdia*, Cymr. *ep*, *eb* equus.

Bopp 'Gl.,' Joh. Schmidt 'Rt. AK' p. 45, Pott W. i. 525, Ebel 'Beitr.' ii. 161, Stokes 'Ir. Gl.' 17. Cp. above p. 457. — The Greeks have preserved the special feminine form only in the proper name Ἱππη-μολγοί. The guttural form *ἵκκο-ς* is attested by 'E. M.' p. 474, 12 (*ἵκκος σημαίνει τὸν ἵππον*) and by the proper name Ἴκκος (Tarentum, Epidaurus). The spir. lenis is preserved in the proper names Λεύκ-ιππο-ς, Ἄλκ-ιππο-ς, Νίκ-ιππος, Ἀρίστ-ιππο-ς, Κράτ-ιππο-ς, etc. (Pott W. i. 533), in the Lesb. *ἵππιος* (Ahr. 'Aeol.' 29), in the Siceliote *ἱπ-νή* = *ἐφιππίς* (Hesych.) i.e. *ἱππ-ινή* *equīna*, sc. 'pellis,' 'vestis.' In this, as in many other cases to be discussed below, the spir. asper took its place in the course of time. The proper name Ἵππυ-ς (of Rhegium) is remarkable. — On the *ι* by the side of the Lat. *e*, Skt. *a*, cp. below p. 712. Pott ii[1]. 260 also connects Ἐπ-ειός the name of the constructor of the Trojan horse, but this is doubtful. — Italian forms with the *p* are *Ep-ŏna* ('Juvenal,' viii. 157) 'goddess of horses and asses' (Preller 'Röm. Myth.'. 594), perhaps the Campanian *Epidiu-s* (Mommsen 'Unterital. D.' 258, cp. Corssen 'Ital. Sprachk.' 126 ff.). — The Indo-Germanic primary form *aḳva* is, according to Jac. Grimm's conjecture ('Üb das Verbrennen der Leichen' p. 18) preserved in the Goth. *aîhva-tundi* 'thorn-bush' more accurately than in the OS. *ëhu*. The root is probably *aḳ* (No. 2). — The Gallic *Eporedia* (the name of a town), 'eporedias Galli bonos equorum domitores vocant' (Plin. 'H. Nat.' iii. 17 (24)), Glück 'Kelt. Namen' p 144; with *eporêdias* (*-os*?) cp. Cymr. *eb-rwydd* 'quick' (*rwydd* = OIr. *ríad* 'cursus,' OGall. *rêda* 'currus').

625 Root λιπ λείπ-ω λι-μ-π-άν-ω leave, abandon, λεῖμ-μα, λείψανο-ν remnant, λοιπ-ό-ς left.

Skt. rt. *riḳ* (*riṇáḳ-mi*) to clear off, empty, evacuate,

rík-ta-s or *rik-tá-s* empty, clear of something. Zd. *ric* forsake.

Lat. *linqu-o, re-linqu-o, re-liqu-u-s, lic-e-t,* Osk. *lik-i-tud* = *lice-to,* Lat. *lic-e-o-r.*

Goth. *leihv-an δανείζειν,* lend.

Lith. *lëk-ù,* Inf. *lìk-ti* remain, leave, *léka-s* left over, *palaíki-s* what is left over.

OIr. *lécim* I leave, let loose, *ro-léiced* concessum est, *dollécim* I throw.

Bopp 'Gl.,' Benf. ii. 11, Ebel 'Beitr.' ii. 157. — The primary meaning, 'leave,' 'leave free,' i.e. 'unoccupied,' is evident throughout. *licet* ('it is left to one,' 'open to one,' cp. καταλείπεται, ὑπολείπεται) is the intransitive to *linquere,* and is related to it as *pendet* is to *pendĕre, jacet* to *jacĕre, candet* to *accendere.* For the meaning we may also compare ἔξεστι, ἐκπέλει. *licet* in the meaning 'it is for sale' (cp. the Engl. *to let*) leads to *liceri* 'to bargain,' 'bid,' 'give oneself up to one another,' from which we arrive at *pol-lic-eor,* the first part of which compound has been discussed on p. 285. Cp. Corssen i². 500 f.
463 Fick i³. 753 is perhaps right in placing none of the Teutonic words here but those with an *h* (from *k*), e.g. the German *leihen, verleihen* in the sense of 'abandon,' 'give over,' while he gives those with *f* and *b* under the rt. *lip* (No. 340). So Pott W. iii. 225. — Perhaps λίσσωμεν· ἐάσωμεν (Hesych.) contains traces of a Greek λικ; it would then be for λικ-*jω*-μεν, but it is not in its right place alphabetically and is therefore a suspicious word. Otherwise M. Schmidt s. v., though he states a different view again 'Rhein. Mus.' xviii. 630. —The Lat. *liqu-ēre* too and *līqui* along with *liqu-or, liqu-idu-s* may be annexed to this root, since the Germ. *lassen* ('leave,' 'let') and *zerlassen* are used in the sense of 'let flow,' 'liquefy,' and there is a Zend. rt. *ric* 'pour out,' which Justi is perhaps right in identifying with *ric* 'give over' (cp. Corssen i². 502).

626. Root μαρπ μαπ *μάρπ-τω* grasp (aor. *ἔ-μαπ-ο-ν, μέ-μαπ-ο-ν* Hesiod), *μάρπ-τι-ς* robber.

Skt. rt. *març* lay hold of, in comp. seize, grasp, comprehend, *març-ana-m* a touching (?).

Lat. *mulc-ēre, mulc-āre.*

This comparison rests on the identity, recognized by Lobeck 'Rhemat.' 48 between βράξαι· συλλαβεῖν (Hesych.) and μάρψαι· συλλαβεῖν, to which may be added βρακεῖν· συνιέναι ('comprehend'), δυσβράκανον· δυσχερές, δύσληπτον, δυσκατανόητον. — To the forms with κ seem to belong the proper names Μάρμακος, Μάρμαξ, and perhaps ἀ-μ-β-λακ-εῖν

or *ἀ-μ-π-λακ-εῖν* 'not to grasp,' and so 'miss,' 'fail,' and to the forms with *π* *Μαρψίας*, *Μάρπησσα*, perhaps too *βράπτειν· ἐσθίειν, κρύπτειν, ἀφανίζειν, τῷ στόματι ἕλκειν* Hesych. Fick ('Ztschr.' xx. 172) takes *μέροψ* too to be 'grasper' and 'comprehender,' *μορφ-ή* with aspiration of the *π* as 'fashion' (Germ. *Fassung* from *fassen* 'to seize'). — The identification of the rt. *μαρπ* with the Skt. *març*, advocated by Roth 'Ztschr.' xix. 222, though the meaning is entirely in its favour, has this against it phonetically, that *març* points to *ḳ*, but *μαρπ* to the other *k*, which has a tendency to become labialized. Fick i³. 720 assumes that the *π* of *μαρπ* arose from *κ* owing to the assimilating influence of the initial *μ*, but this is unlikely. Perhaps *mark*, and *marḳ* were two separate expansions of the rt. *mar*, with different determinatives. Cp. note on No. 481.

627. Root ὀπ see (*ὄπ-ωπ-α, ὄψομαι*), *ὄμ-μα* (Lesb. *ὄπ-πα*), look, eye, *ὤψ* (st. *ὠπ*), *ὄψι-ς* sight, face, *ὀπ-τήρ* spy, *ὀπ-ῖπ-εύειν* ogle, make eyes, *ὀπ-ή* (peep-hole) hole, *ὄπ-εας* awl, *ὀφ-θ-αλμό-ς* eye.

Skt. *ak-sh-á-m, ak-sh-án, ák-sh-i* eye, st. *īk-sh* see, look, *íksh-a-ṇa-m* look, eye. Zd. *akhsh* see, *ashi* eye.

Lat. *oc-ulu-s*.

Goth. *aug-ô ὀφ-θαλμός, aug-jan* show.

Lith. (*at*) *ank-ù* inf. *àk-ti* to have one's eyes opened, *ak-l-s* eye, *ák-a-s* a hole in ice; ChSl. *ok-o* eye, *ok-no* fenestra.

OIr. *aged* face, *in-agid* adversus; *ainech, enech*, Cymr. Arem. *enep* facies, Corn. *eneb* pagina, Arem. *aenep* adversus.

Bopp 'Gl.,' Pott W. ii. 2, 302, Diefenbach 'Vgl. Wörterb.' i. 53, Grimm 'Deutsches Wörterb.' i. 789, Schleicher 'Ksl.' 97. — For a discussion of the meaning see p. 101; it may be added that in this respect the aor. *ἐπώψατο* 'conspexit' (Pind. fr. 58 Bergk) and *ἐπιόψομαι* (*β* 294), 'I will look out,' 'select' (with the aor. *ἐπιώψατο*) are characteristic. — The original *κ* occurs in the Boeot. *ὄκ-τ-αλλο-ς· ὀφθαλμός* and in *ὄκκο-ν· ὀφθαλμόν* Hesych., on the formation of which words see Ludw. Schwabe 'De deminutivis Graecis et Latinis' p. 84; it is beneath the surface in *ὄσσε* (neut.) = *ὀκι-ε*, where the sibilant finds its correlative in the ChSl. *oči* the dual of *oko*. The st. *ὀκι* corresponds completely to the Lith. *aki*. It is again traceable in *ὄσσομαι* = *ὀκ-jo-μαι*, 'look,' perhaps too in *Ὄσσα*. Cp. I. Bekker 'Monatsber.' 1864, 12. In the form *ὀττι-ς* too, which occurs in *τρι-οττί-ς* (Arcadius p. 35, 12) properly 'three-eyes,' but used only of a neck-ornament 464

with three holes, with the by-form *τριοπίς* preserved by Hesych. (*περιτραχήλιον τρεῖς ἔχον ὀφθαλμοὺς ὑαλοῦς*), the *ττ* must owe its existence to the older *κ*. — Among the forms with *π* we may notice specially *ὀπ-ίπ-α-ς* and *ὀπ-ίπ-εύω* (corrupted into *ὀπ-ιπ-τεύ-ω*) as reduplicated forms (cp. *ὀνίνη-μι* and *ἠν-ίπ-απ-ο-ν* No. 623, in which latter case the order of the syllables is transposed). For *ὀφ-θ-αλ-μός* two natural explanations suggest themselves as opposed to attempts such as those of Pott ii². 413, 590, 781 (rt. *θαλ* 'the bloom of the face'), in which he owns to some hesitation: either that it is from a root (cp. p. 62 ff.) with an affixed *θ* (cp. *ἐσ-θ-ή(τ)-ς*), when the multiplicity of suffixes might perhaps be explained by the assumption of a verb *ὀφθαλλω* as middle step which had perhaps the meaning 'eye,' 'ogle,' or that it came by aspiration from *ὀπταλ-μο-ς* (Roscher 'Stud.' i. 2, 105), in which case we should have to assume a verb *ὀπταλλω* coming near to the Boeot. *ὅκ-τ-αλλο-ς*. — Ebel ('Ztschr.' viii. 242) and Grassmann (ix. 23) explain the diphthong of the Teutonic word by assuming metathesis — with the assumed *ah-va* we might compare the Gk. *ὀκ-ϝο* later *ὀκ-κο*, — Lottner (ix. 319) otherwise. Fick i³. 4 connects also the Goth. *aha* *νοῦς*, *ahjan* *νομίζειν*, to which belongs the Germ. *achten* 'consider.' The diphthong (in the Goth. *augô*) is explained by Möller 'Ztschr.' xxiv. 436 by the epenthesis of the *u* which was originally sounded after the *g* (*agu-an*), i. e. by the same element which produced labialism in Greek. — *δράκ-ων* (No. 13) makes it seem probable that *ὄφι-ς* 'serpent' belongs to this root (cp. Hesych. *πρόωφ-ο-ς· πρόσκοπος*), its trochaic scansion in *αἰόλος ὄφις* in Hom. and Hipponax fr. 49, 6 points perhaps to **ὀκ-ϝι-ς* (cp. p. 505); *ὄπεας* (by-form *ὀπεύς*) is no doubt rightly explained by Joh. Schmidt ('Die W. AK' p. 27) to be the 'maker of holes' (*ὀπάς*). — In this essay (cp. Tobler 'Ztschr. für Völkerpsych.' i. 366) the rt. *ὀκ*, *ὀπ* is identified with the rt. *ak* (No. 2), to be sharp,' in which case the eye would have got its name from its keenness. But we can now see that this explanation is inadmissible owing to the difference between the two *k*'s: 'to be sharp,' 'to penetrate' is *aḳ*, 'to see' is *ak*. — On the Keltic words cp. Windisch 'Beitr.' viii. 45; they remind us forcibly on one side of the Gk. *ἐνωπῇ*, *ἐνώπια*, *ἐνώπιον*, and on the other of the Skt. *ánīka* 'face,' 'front.'

628. This number I now omit, because, after the investigations of Fick i³. 16, 801 and Pott W. v. 205 on the subject of *ὀπό-ς* and *sūcu-s*, I doubt whether these words are identical. On *ὀπό-ς*, *σοφό-ς*, *σήπειν*, *sapere*, cp. below p. 512.

629. *πέντε* (*πεντά-πολι-ς*, *πεντά-δραχμο-ς*) Aeol. *πέμπε*, *πέμπ-το-ς*. — Skt. *pañḱan*. Zd. *pañcan*, Ved.

pañka-thá-s, Zd. *pukh-dha* = *πέμπ-το-ς*. — Lat. *quinque*, *quin(c)-tu-s*, *Quinct-ili-s*. — Goth. *fimf*. — Lith. *penkì*, ord. *pènk-ta-s*, ChSl. *pę-tĭ*, ord. *pętyj*. — OIr. *cóic*, ord. *cóiced*, Cymr. *pimp*, ord. *pimphet*.

Bopp 'Vgl. Gr.' ii. 71, Schleicher 'Comp.' 399, 407, Windisch 'Beitr.' viii. 22. — For the Samnite Πόμπτιες, *Pontius* = *Quintius*, to which also *Pomp-ēju-s* no doubt belongs (cp. *Petr-ēju-s*; *petora* 'four'), 465
see Mommsen 'Unterit. D.' 289.—The *π* in *πεμπάζειν* (Homer, Aesch.) is remarkable, as also in *πεμπάς* (Attic) and *πεμπτό-ς*. For the latter cp. Havet. 'Mém.' ii. 265. — It remains a question whether we are to assume with Schleicher a primary form *kankan*, from which *πέμπε* would have arisen by a double labialism, or a primary form *pankan*, which would have been preserved most accurately in Lithuanian, while in the Lat. *quinque* the initial letter would have been assimilated to that in the middle of the word. It is argued against Schleicher by Friedr. Müller 'Beitr.' ii. 397 that reduplication appears unsuitable in a word for an odd number. The latter view is supported by Pott 'Beiträge' ii. 55, 'E. F.' i². 142, perhaps rightly. We have a certain instance of such assimilation in *Boblicola*, which is adduced by Bergk 'Ztschr. f. Alterthumsw.' 1856, p. 132, and a similar one in *bi-bo* compared with the Skt. *pí-bā-mi* (No. 371). Benfey 'Or. und Occ.' i. 573 collects other similar instances, though many are doubtful. Cp. No. 630. If we start with *pankan* as the primary form we may perhaps derive it from the rt. *pak*, which occurs in No. 384 as *puk*, in which case the number five would have been named from the closed hand.

630. Root πεπ *πέπ-ων* ripe, *πεπ-τό-ς* cooked, *πέψι-ς* digestion, late present *πέπ-τω* cook, *πέμ-μα* pastry, *πόπ-ανο-ν* sacrificial cake.

Skt. *pak* (*pák-ā-mi*) cook, bake, ripen, *pāk-á-s* cooking, ripening, *pak-vá-s* done (of meat), ripe, *pak-tí-s* cooking, digestion. Zd. *pac* cook.

Lat. *coqu-o*, *coquo-s*, *coqu-īna*, *cŭ-līna*.

ChSl. *pek-ą* coquo, *peš-tĭ* fornax, Lith. *kep-ù* bake, *kep-ėje* bakeress.

Corn. *peber* pistor, *popei* pistrinum, Cymr. *popuryes* pistrix, *poeth* hot; OIr. *cucann* pistrinum.

Bopp 'Gl.,' Pott W. iii. 173, Benf. ii. 88, Schleicher 'Ksl.' 88, Ebel 'Beitr.' ii. 143, Windisch 'Beitr.' viii. 22, Stokes ibid. 346. — We are here met by the same doubt that met us under No. 629,

whether we are to take *kak* or *pak* to be the original root. In this case too it is only Latin that has a double guttural throughout, and it is to be noticed by the way that good MSS. of Plautus and Vergil have more frequently *quoquo* and the like (Soph. Bugge 'Tidskr. f. Philol.' 1866 p. 36, cp. Corssen i². 69). Perhaps we should connect *κακκ-άβη* 'pot,' 'pan,' where *κκ* may be explained to be from *κϝ*. A similar suffix occurs in *κάνν-αβο-ς*, *κόν-αβο-ς*, *κόττ-αβο-ς*, *Ἐκ-άβη*. Or is the word onomatopoetic like *ὄττοβο-ς*, *ἄραβο-ς*? The Skt. and Slav. forms point plainly to the form *pak*, as does the older present *πέσσω* = *πεκjω*. In Lithuanian its place is taken by *kap*, which meets us also however in the Gk. *ἀρτο-κόπο-ς* 'bread-baker,' which cannot be separated from this root (Lobeck 'ad Phryn.' p. 222). Pott's attempt ii². 781 again to make a 'bread-hewer' (rt. *κοπ*) out of *ἀρτοκόπος* is a complete failure, and no help at all is to be got from *χονδροκοπεῖον* 'a cornmill.' With the Greeks themselves *ἀρτοκόπος* was equivalent to *ἀρτοπόπος*, and *ἄρτον πέσσειν* is the technical expression for 'bread-baking.' Fick i². 519 assumes for these words a special rt. *kap*. Cp.
466 however *σκέπ-τομαι* and *spec-io* (No. 111). Lastly we have the double labial in *pap*, Gk. *πεπ*, whence too comes the probably Oscan *pop-īna* as correlative to the common-Latin *coqu-īna*. With this form we may perhaps connect *ἕψ-ω* for *πεψ-ω*, with an added *σ* (cp. *ἵ-πτα-μαι* for *πι-πτα-μαι*) along with *ὄψ-ο-ν*, *ὀπ-τό-ς* for *ποπ-το-ς* and thence *ὀπ-τάω* 'roast.' For the transformation of the initial see p. 709. — For the meaning 'ripe' we may compare Cic. 'Cato' xix. § 71 'matura et cocta.' Starting from this point we arrive at the meaning 'soft' and in this way *πέπον* was used by way of endearment and abuse too. The notion 'ripe' in the special sense of 'ripe for death' is assumed by Osthoff ('Ztschr.' xxiii. 428) to account also for the OHG. *feigi*, which took later another shade of meaning, i. e. that of 'faint-hearted.' — Mommsen's assertion, that even to the Graeco-Italians 'baking' was as yet unknown ('Hist. of Rome' vol. i. p. 20), is rendered doubtful by this root.—The OHG. *bahhan* however belongs to No. 164.

631. Interrogative stem *πο* (New-Ion. *κο*) *πό-θι*, *ποῦ* where? *πό-θεν* whence? *πῶς* how? *πό-τε* when? *πό-τερο-ς* which of two? *πό-στο-ς* where in order? *πο-ῖο-ς* qualis? *πό-σο-ς* quantus?

Skt. *ka-s*, Zd. n. s. *kô* (fem. *kā*, n. *ka-t*) who? *kva*, Ved. *kú-ha* where? *kú-tas* whence? *ka-thā́* how? *ka-dā́* when? *ka-ta-rá-s* (Zd. *ka-tâ-ra*) which of two? *ka-tamá-s* which out of many? *ká-ti* how much? Zd. *cvañt* quantus?

Lat. *quo-d*, *quō*, *u-bi* (for *quo-bi*) = Umbr. *pu-fe*,

qua-m, *quan-do*, *u-ter* (for *quo-tero-s*), *uter-que* = Osc. *pú-türu-s-pid*, Umbr. *pu-tre-s-pe*, *quo-t*, *quo-tu-s*, *qua-ntu-s* (Umbr. n. s. fem. *panta*), *quā-li-s*.

Goth. *hva-s* (fem. *hvô*, n. *hva*) who? *hvan* when? *hva-r*, OHG. *hwâr*, *wâ* where? Goth. *hva-th* whither? *hva-thar*, OHG. *hwëdar* which of two?

Lith. *kà-s* (m. and n.) who? *kù-r* where? *ka-dà* when? *ka-í* how? *ka-trà-s* which of two? — ChSl. *kŭ-to* quis? *ky-j* (neut. *koje*) qualis? *ko-toryj* qui.

OIr. *ca-te*, *co-te* quid est? *can* unde? *cach*, *cech* (adj.), *cách* (subst.) quivis, *cechtar* uterque; Cymr. *pa* qui? *pop* (adj.), *paup* (subst.) quivis.

Bopp 'Vgl. Gr.' ii. 203, Aufrecht 'Umbr. Denkm.' ii. 37, Mommsen 'Unterit. Dial.' 290, Diefenbach 'Vgl. Wtb.' ii. 594, Schleicher 'Lit. Gr.' 195. — The treatment of this stem in the above works leaves nothing to be said about the several forms. In all languages we find the indefinite use side by side with the interrogative. The κ survives not only in the New-Ionic forms κοῦ, κόθεν, κῶς, κότε, κοῖος, κόσος, κότερο-ς but also in the ordinary Greek ἕ-καστο-ς with the comp. ἑ-κάτερο-ς, for it is unmistakeable that κα-στο-ς is identical with πο-στο-ς, and κα-τερο-ς with πο-τερο-ς. Since the initial ϝ, of which Homer too gives traces, is attested by the four times repeated ϝέκαστος on the lately discovered Locrian inscription from Naupactus, the most natural account of the syllable ϝε- is that it is derived from the reflexive stem (No. 601, Allen 'Stud.' iii. 248 ff., cp. Leo Meyer 'Ztschr.' xxi. 350 ff.). Fick i³. 33 is probably right in referring πό-σ-το-ς to *ποτι-το-ς (*ποτι = Lat. *quo-t(i)*), while the Lat. *quo-tu-s* came from the 467
unexpanded stem. It may be left to others to decide how it was that the κ and the α were preserved in ἕκαστος. — A trace of the labial spirant is to be seen in the doubling of the π in the poetical and Aeolic ὅππως, ὅπποτε, etc., where the ππ has arisen by assimilation from πϝ and this from κϝ, and consequently corresponds completely to the ππ in ἵππος discussed above. — In many languages the indefinite use gives rise to the general meaning 'all,' 'every,' which is to be seen e. g. in the Lith. *kà-s* by the side of the interrogative meaning, and which is introduced in the Italian languages by the addition of *-que* (cp. No. 647) which also belongs here, Osc. *-pid*, Umbr. *-pe*, *-pei* (*uter-que*, *quis-que*), though in *quoti-die*, and *quot-annis* we find the same meaning without such an addition. Hence we may with certainty

follow Schmidt ('De pron. Graeco et Latino' p. 61) and Pott W. i. 828 in connecting the rt. *παντ* (n. *πᾱ-ς*) which, formed with the suffix *-vant*, is to be referred to a presumable **kā-vant* 'how much?' 'how great?' analogous to the Skt. *tā́-vant*, 'so much,' 'so great.' (Zd. *cvañt*, Lat. *quant-u-s*, Umbr. *pant-a*; Bopp 'Vgl. Gr.' ii. 229). It cannot be urged against this view that the Ionians did not, as we might expect, say **κᾱ-ς* nor the other Greeks **ἑ-παστο-ς*, as the dialects show an unmistakeable variation in the treatment of these sounds. The adv. *πάμ-παν* is most likely nothing but the reduplicated neuter; *πάν-υ* seems to be a compound—perhaps the *υ* is the same *u* that is added in Skt. to different pronouns (e. g. *kim-u* 'what indeed?') and has left other traces in other languages (Sonne 'Ztschr.' xii. 269).

632. Root сеп say, Hom. *ἔ-σπ-ε-τε* say, *ἔνι-σπ-ε-ν* said, *ἔνν-επ-ε*, *ἐνί-σπε-ς*, *ἐνί-σπε*, *ἐν-έπ-ω* say, tell (fut. *ἐνι-σπή-σω*).

OLat. *in-sec-e* = *ἔννεπε*, *insectiones* = narrationes, *insexit* dixerit (Paul. Ep. 111).

OHG. *seg-jan*, *sag-ê-n* say.

Lith. *sak-aú*, inf. *sak-ý-ti* say, *į-sak-aú* tell to, *pá-sak-a* narration. — ChSl. *sok-ŭ* *κατήγορος*, *soč-iti* indicare.

OCymr. *hep* inquit; OIr. *insce* sermo (for *in-sece*); *aithesc*, Cymr. *atep* responsum (for *ati-sec*); OIr. *cosc*, Cymr. *cosp* set to rights, punish (for *con-sec*); OIr. *in-cho-sig* significat.

Ebel 'Ztschr.' ii. 47 (cp. 'Beitr.' ii. 165) has rightly separated the Greek words from *εἰπεῖν*, *ἔπος* (No. 620) which have an initial *ϝ*. This root has nothing whatever to do either with the rt. *ϝεπ*, to which belongs *ἐν-οπή*, and which has quite a distinct meaning, or with *ἐνίσσω* (No. 623). *ἔ-σπ-ε-τε* is either a reduplicated aor. for *σε-σπ-ε-τε* (cp. *ἑ-σπ-ό-μην* No. 621) or else has come from *ἔν-σπε-τε* (Van. 995). *ἐνί-σπε-ς* is formed like *σχ-έ-ς* rt. *σεχ* (No. 169), *ἐνί-σπ-ε* on the analogy of the thematic conjugation. *ἔννεπε* comes by progressive assimilation from *ἐν-σεπε* like the Aeol. *ἔ-τεν-να* = *ἐ-τεν-σα*, the fut. *ἐν-ίψω* like *ἴσθι* 'be' with softening of *ε* to *ι*. — I find traces of the *κ* in the Homeric *ἴσκεν* which χ 31 most unmistakeably means 'said' (Död. 'Gl.' 287), and which I take to be an imperf. like *ἴσ-χ-ε-ν* with *ἰ* as a reduplication (*σι-σεκ-ε-ν*), and also in *θέ-σκε-λο-ς* = *θές-φα-το-ς*. — On the Italian
468 forms cp. Gellius xviii. 9, who quotes 'insecendo = dicendo' from Cato, and *insece* from Ennius and Livius Andronicus, and adduces *insectiones*, Plac. 'Gl.' *insequis*, 'narras, refers sed interdum pergis.'

The MSS. Plaut. 'Mil.' iv. 6, 5 (or 1220 R.) have *secuta est* = locuta est, but Sophus Bugge 'Tidskrift f. Philol.' 1866 p. 18 gives weighty reason for regarding it as an error. Corssen ('Ital. Sprachk.' 70) holds the spelling with the *qu* (also *sequius*, 'sermo' Loewe 'Prodr.' 420) to be mistaken, and to have originated in the idea that it was somehow connected with *sequi*. The Umbr. *pru-sik-u-rent* in the sense of 'declaraverint' is deduced by Aufr. and Kirchh. 'Umbr. Sprachdenkm.' ii. 331. (Cp. Bréal 'Tables Engubines' p. 248.)—To the forms with π πρόσ-εψι-ς· προσαγόρευσις Hesych. certainly belongs, probably θέ-σπ-ι-ς, θε-σπέ-σιο-ς. — On the Keltic words cp. Windisch 'Beitr.' viii. 46, Stokes ibid. 347. OIr. *saigid* 'disputare' reminds us on the other hand of the Goth. *sakan* 'strive.'

633. Root τρεπ, τρέπ-ω (Ion. τράπ-ω) turn, τροπ-ή a turning round, τρόπ-ο-ς a turn, τρόπ-ι-ς keel, τρόπ-ηλι-ς bundle, τροπ-εῖο-ν a press, τραπ-έ-ω tread grapes, εὐ-τράπ-ελο-ς versatile, clever.

Lat. *torqu-eo*, *tor(c)-mentu-m*, *torc-ulu-m*, *torc-ular* press, *torques* chain, bolt.

Pott W. iii. 155. Jac. Grimm 'Gesch.' 403 compares also the Goth. *threih-an* θλίβειν, OHG. *drâ-j-an*, which Pott W. iii. 164 puts under another root, Benf. i. 673, Van. 297. — The *k* is preserved in ἄ-τρακ-το-ς 'spindle'—where ἀ probably comes from ἀμφ as in ἄ-βολο-ς 'cloak' — of the same meaning as the Skt. *tark-ú-s*, and probably in ἀ-τρεκ-ής, ἀ-τρεκ-έ-ως (on the analogy of which Lycophron formed νη-τρεκ-έ-ως), for which the Etymologica give a Doric by-form ἀτρεχής. With Döderlein 'Gl.' 655, 2467 I take the word to mean 'not turned' ('*unverdreht*'), 'unconquered.' Cp. Walter 'Ztschr.' vii. 378. We may perhaps add εὐ-τρόσσ-ε-σθαι (perhaps better εὔ τρόσσεσθαι)· ἐπιστρέφεσθαι Πάφιοι Hesych. The assumable *τροσσω = τροκjω reminds us forcibly of the Lat. *torqueo*. — Ἄ-τροπο-ς (also Ἀταρπώ) is commonly and probably rightly explained to be 'not to be turned aside.'—That τερπι-κέραυνο-ς (cp. τερπώμεθα· τρεπώμεθα Hesych.) meant not 'delighting in lightning,' but 'fulmina torquens' seems to me to have been proved by Gust. Meyer 'Stud.' vii. 181. — We have perhaps a metaphysical application of our root in the Skt. *tark-a-s* 'conjecture,' 'reflection,' in reference to which Schweizer 'Ztschr.' xii. 302 recalls the Lat. 'volvere animo.' Again, 'turning' and 'twisting' is the way of the *versutus*, the knave and cheat; Skt. *tṛk-van* 'thief,' with which Schweizer aptly compares the Lat. *trīc-ae*, *trīcāri*, *intrīcare*, *extrīcare*, in which the physical meaning 'windings' is still evident ('extricata densis cerva plagis' Hor. 'Carm.' iii. 5. 31). It may be doubted whether the Homeric epithet for the sly Phoenician merchants,

τρῶκται, means 'gnawers,' 'sweet-tooths' (cp. τρώξ 'worm'), as the ancients presume, or belongs here. As far as sound goes the first interpretation is preferable. — Seeing that it is extremely doubtful whether a *p* ever took the place of *k* in Skt., I can now question whether Grassmann 'Ztschr.' ix. 20 is right in connecting some Skt. forms in *p*. The rt. *trap* means 'to be ashamed,' *trap-as* 'confusion,' 'shame.' *tṛp-rá-s* 'restless,' 'hasty,' 'anxious' and the synonymous *tṛp-ála-s* recall both the Gk. εὐ-τράπ-ελο-ς which can hardly be separated from τρέπω and still more the Lat. *trep-idu-s*. The Lat. *p* for an old *k* (as
469 in *lup-us*, *Ep-ona*(?), *sap-io*) is established by *trep-i-t* 'vertit' (Paul. 'Ep.' 367), cp. Corssen 'Nachtr.' 72, i². 117, while *trapetum* and *trapes* are borrowed from the Greek.—The OIr. *torc* in *muintorc*, Cymr. *torch* 'torques' (Z². 791, 155) is set down by Ebel 'Beitr.' ii. 154 as borrowed from the Latin.

To these examples of the change of *k* into *p*, which appear to me to be certain, may here be added a few stems in the case of which it can only be said that the change is probable. It has long been established (Bopp 'Gl.' etc.) that the Skt. and Zd. *ap* (fem.), n. pl. *ā́p-as* instr. pl. *ad-bhís* 'water' is not to be separated from the Lat. *aqua*, the Goth. *ahv-a* ποταμός, OHG. *aha* and *awa*, OPruss. *ape*, Lith. *ùpė*, 'river' (Nesselman 'Deutsch-Preuss. Vocabularium' Königsb. 1868 p. 22). But the Latin and Teutonic forms point to an original *k*, which we may safely assume for the Indo-Germanic period. In Greek we may expect to find it represented by *π*, as also in all the Italian dialects except Latin. As we saw at p. 119, we may without violence refer to a stem *āp* with the meaning 'water' the proper name Μεσσ-ά̆π-ιοι whose country in lower Italy does, in fact, lie just between two 'waters' (cp. Μεσο-ποταμία, Μεθ-ύδριον, *Inter-amna*), a fact which led Pott ii¹. 43 to the expression of the like opinion. It is true that at first sight this meaning does not equally suit the Locrian Μεσσάπιοι mentioned Thucyd. iii. 101, nor the Μεσσάπιον ὄρος in Boeotia and Thrace, nor the Laconian Μεσσαπέαι. Also the name of the river Ἀπι-δανό-ς (cp. Ἀπιδών) may be easily explained to mean 'the water-distributer' (rt. δο, *da* No. 270). (Cp. Skt. *ád-da-s* 'cloud,' properly 'water-giver.') Pott (*ut sup.*) is right again in comparing the old name of the Peloponnesus γῆ Ἀπία with a long *ā* (Aesch. 'Suppl.' 790) with the later Slavonic name *Morea* from the Slav. *more*

=*mare*, and so 'Water-land.' And the attempt has been made to derive even the much-discussed Homeric ἐξ ἀπίης γαίης (whose derivation from ἀπό, Buttm. 'Lexil.' i. 67, Pott i². 446, has its difficulties) from the stem *ap* with a short vowel. It would then contain the idea 'from the land over the sea,' 'over the water,' and this would suit τηλόθεν, with which ἐξ ἀπίης γαίης is connected, and the expression would be a natural one. Of the Italians probably the *Appuli* and the old Volscian town *Apiola* (Strabo v. p. 231), belong here, but hardly the Lat. *amnis* (cp. the OIr. *abann* 'river'), for in Latin we ought to find the *k*. Froehde 'Ztschr.' xxii. 256 adds ἤπειρο-ς, which he even compares with the MHG. *uover* in spite of the fact that elsewhere an *h* occurs in Teutonic. Sanskrit is the language which presents the most difficulty. For, as we have seen, labialism cannot be established for Sanskrit. But perhaps Fick i³. 473, 489, has hit on the 470
right solution in assigning the Lat. *aqua* (Goth. *ahva*) and the Skt. *ap* with the corresponding Persian and Lithuanian words to two distinct roots. Nothing but very uncertain conjectures can be made as to the original meaning of both of them. The word can hardly have anything to do with the rt. *aḳ* 'be quick,' with which Joh. Schmidt has connected *aqua*. It must be left equally doubtful whether the Gk. ἀπ belongs to *aqua* or to the Skt. *ap*.

If we compare βου-κόλο-ς with αἰ-πόλο-ς (No. 595), ἱππο-πόλο-ς, we shall be very much inclined to assume in this case the same change of *k* to *π*. If we add αἰγι-κορ-εῖς (Lobeck 'Phryn.' 652), we get the older *ρ* in the place of the λ, and are brought to an Indo-Germ. rt. *kar*. A trace of the guttural is to be seen also in the Elic θεη-κόλο-ς (Hesych. θεο-κόλο-ς, κολεῖν· ἑλ-θεῖν) by the side of θεη-πολέ-ω. I think we may with Benfey 'Ztschr.' viii. 90 and Froehde 'Beiträge zur Lat. Etymologie' p. xiii. identify this rt. *kar* with the Skt. *ḱar* 'stir oneself,' 'go,' 'walk.' But it is impossible to separate the above-mentioned compounds from the rt. πελ which occurs in πέλ-ω, πέλ-ο-μαι, ἀμφί-πολο-ς, πολ-εύω, πωλέ-ω and πωλέ-ο-μαι. The fundamental notion is 'turn,' then 'revolve,' 'turn oneself about,' whence arises the more indefinite meaning of traversing in the sense of 'versari,' and whence we

easily arrive at the transitive use as applied to the driving of cattle. Most of these meanings are attached also to the Skt. *ḱar ; gō-ḱar-a-s* 'trodden by oxen,' then 'trodden' generally, is the passive to *βου-κόλ-ο-ς*, the active to it is *ḱāraka-s* 'driver,' 'keeper.' *ḱāra-s* 'going,' 'movement,' also used of the constellations, may be compared to *πόλο-ς*. The most colourless meaning of *πέλειν*, *πέλεσθαι*, which comes out already in Homer, and which means hardly anything more than 'to be in a certain state,' 'to be,' is likewise established for the Skt. *ḱar* in the 'Pet. Dict.' Now as the same scholars have seen, the Lat. *col-e-re* agrees with this. As a link between the rt. *col* and πελ we have *in-quil-īnu-s* and *Ex-quil-iae* (*Esquiliae*) acc. to Corssen ii². 1024, which words belong to *in-col-a*, *col-ōnu-s* and, as Froehde justly remarks, point to an older *kval* or *kvel*. On the relation of *qu* to *c* in these and other words, Corssen ('Ital. Sprachk.' 72 ff.) has made valuable comparisons, but they do not prove that *qu* in Latin is always the result of a modification possible for every *c*. In its application to the ground *col-e-re* finds its analogy in *πόλο-ς*, which acc. to Hesych. is also *ἡ μεταβεβλημένη γῆ εἰς κατασποράν*, and also in the use of *πολεύειν*, *ἀναπολεύειν*, *θαλαμηπόλος*, *θεο-πόλος*. The notion 'traverse' will serve to connect many of these uses with the primary meaning and with each other. For *agrum colere* we ought to compare also the Zd. *car-âna* (m.) 'field.' We
471 have here then to do, it seems, with a word of primitive culture, and it is significant, that it still preserves in the East and in Greece its pastoral application, while in Italy it receives the application to agriculture and religion, and in Greece that also to the trade which everywhere accompanies travel. I know of no corresponding words in the northern languages except the ON. *fal-r*, OHG. *fal-i* 'for sale' (Germ. *feil*), which agree with *πωλεῖν*, but are explained quite differently by Fick i³. 671. — The different treatment of Ascoli 'Ztschr.' xii. 432 ff. and Corssen's remark (i². 428) do not convince me. I cannot be sure whether the adjectives *εὔ-κολο-ς* 'easy,' *δύσ-κολο-ς* 'hard to please,' or 'to get round,' which do not occur before Attic times, and which may easily be linked with these in meaning, belong here, and so to the words with the *κ*, or not.

Froehde's attempt (*ut sup.*) to identify the Lat. *que-o* (rt.

qui) with a rt. πι deduced from *νή-πι-ο-ς*, will not find many supporters. Rather do we get from *νη-πύ-τιο-ς* a rt. πυ, and then there is a wide gulf between the meanings of *que-o* and *νή-πι-ο-ς*. I cannot accept the latest theory about these words which is expounded by Bezzenberger and Fick ('Beitr.' ii. 272, 341) who also sever entirely the Homeric *πινυτό-ς* from the absolutely synonymous *πεπνυμένο-ς* and connect it with the Skt. rt. *ki* 'perceive' (No. 649). On the developement of the *ι* by anaptyxis cp. below p. 731. — Cp. Pott W. i. 459 and on *queo* Ascoli 'Lautl.' 55.

Anyone who has read this discussion of Labialism will perceive at once that in the few examples that are adduced of a dialectic variation between *κ* and *π* — particularly the Thessal. *Κιέριον* = *Πιέριον* (O. Müller 'Dorians' ii. 521), *κόρνοψ* = *πάρνοψ* (Ahrens 'Aeol.' 219), *Κύδνα* = *Πύδνα* (Steph. Byz.) — the *κ* has a presumptive priority. For the first word the form *Κουάριος* is remarkable, an epithet under which Poseidon was worshipped in the neighbourhood of *Πιέριον* ('Journal des Savants' 1829 p. 515). Unless we have here one of chance's freaks, we might conjecture that this *Κουάριος* (for **Κουιαριος*) contains the link between *κ* and *π*, i. e. a Greek *qu*.

We may here mention also *πύανο-ς* by the side of the usual *κύαμο-ς* 'bean;' the two forms are discussed by Kuhn 'Ztschr.' xi. 309, and, with a very different result, by Ahrens 'Rhein. Mus.' xvii. 343. That we have here *π* as the equivalent of *κ* is completely proved by the fact that the same month that was called *Πυανεψιών* by the Attics went by the name *Κυανοψιών* in Samos. Cp. the inscription discussed by Kirchhoff in the 'Monatsber. der Berl. Akad.' 1859 p. 739 ff. The Samian *κύανος* was related to *πύανος* then as the Ion. *κοῦ*, *κῶς*, *κότε* to 472
the Att. *ποῦ*, *πῶς*, *πότε*, and consequently was the older form, *πύανος* the later. This refutes Ahrens' conjecture that the word is to be referred to the Skt. *push* 'nourish.' For then the *κ* would be inexplicable. Why we should reject the well authenticated statement that *πύανος* is identical with *κύαμος* 'bean,' I do not understand. This is not inconsistent with the fact that according to other accounts *πύανος* denoted a kind of broth. The festival of the *Πυανέψια* however was called *Πανόψια* or *Πανοψία* outside Attica, as Harpocration, Suidas,

and Photius s. v. show by a quotation from the orator Lycurgus. According to the latter and Ahrens the name meant a 'general cooking,' but may it not have been a convenient shortening of *Πυανόψια*, in which case we should have established the series *Κυα*, *Πυα*, *Πα*?

An Aeolian *π* by the side of an Att. *τ* for an original *k* occurs in *πέσσυρες*, *πίσυρες* (No. 648), and in *πέμπε* (No. 629). To this we may now add the Cyprian *πείσει* 'he will repay' ('Table of Idalion' ll. 12 and 25), which is thus completely synonymous with the *ἀποτεισεῖ* (tabb. Heracl.), the Homeric *ἀποτίσει* (Deecke and Siegismund 'Stud.' vii. 252), and consequently belongs to No. 649. But the ordinary Greek *ποινή*, which Fick i³. 533 compares with the Zd. *kaêna* 'revenge,' 'avenger,' would, if it belongs here, prove that the labial extended still further. Since an initial *p* in Latin hardly ever arose from *k* the identification of *ποινή* with *kaêna* compels us to regard the Lat. *poena* as a word borrowed from the Greek. The old derivation of both words from the rt. *pu* is defended by Corssen 'Ital. Sprachk.' 140, though he leaves the important Cyprian form out of account. The Homeric *ἄ-ποινα* 'ransom-money' (probably for *ἀπ(ο)-ποι-να*) shows still more clearly the fundamental notion of paying.

b.

A Greek *β* corresponds in the following cases to an Indo-Germanic *g*, which in Sanskrit, Lithuanian, and Slavonic has remained unaltered, or has changed into the corresponding palatal, while in Teutonic the *g* is shifted to *k*. The Italian and Keltic languages too now and then show the labial.

634. Root βα go. Aor. *ἔ-βη-ν*, pres. part. *βι-βά-ς* (Hom.), iterative *βά-σκ-ε*, vbl. adj. *βα-τό-ς*, pr. *βαίν-ω*.—*βῆ-μα* step, *βω-μό-ς* steps, altar, *βη-λό-ς* threshold, raised place, *βέ-βη-λο-ς* trodden, profane, *βά-σι-ς* a going, a pedestal, *βά-θ-ρο-ν* step, *βά-δ-ο-ς* a going, *βα-δ-ίζ-ω* walk along, *βέ-βα-ιο-ς* firm, *βι-βά-ζ-ω* make to come, bring, *βι-βάσθ-ων* striding along.

Skt. rt. *gā* go (aor. *á-gā-m*, pr. *ǵí-gā-mi*), *gá-ti-s* a

going, *ga-m* go (pr. *gám-ā-mi*, *gá-ḱḱh-ā-mi*), *ga-tá-s* gone, *gam-áj-ā-mi* make to come, bring up. — Zd. rt. *gā* and *gam* go, *jam* and *gaêth* come. 473

Lat. *bē-t-ĕ-re* (*ad-bĭ-t-e-re*, *im-bĭ-t-e-re*, *re-bĭ-t-e-re*), *ar-bĭ-ter*, *ven-i-o*, Umbr. *ben-ust* venerit, Osc. *kúm-benęd* convēnit.

Goth. *qim-an*, OHG. *quëm-an*, *kom-an* come; Goth. *qum-s* arrival, OHG. *bi-quām-i* (Germ. *bequem*) comfortable.

Bopp 'Gl.,' Pott W. i. 16 ff., Benf. ii. 58, Fick i³. 555. — The rt. *ga* then changed first to *gva*, then to *ba*, as did the nasalized *ga-m* to *gvam*—regularly represented in Goth. by *qam*—and then to *βαν* (*βαίν-ω* = *βαν-j-ω*), Umbr. Osc. *ben* (Aufr. and Kirchh. i. 89), to which may be added the Osc. *ce-bn-ust* = 'huc venerit' ('Stud.' ii. 437), where it is to be noticed that the Graeco-Italians agree in having an *n* where Skt. and Teuton. have *m*. — The reduplicated present-form *βι-βά-ς* corresponds to the Skt. *ǵí-gā-mi* just as the iterative *βά-σκ-ε* corresponds to the Skt. *gá-ḱḱh-ā-mi*, i. e. *ga-sk-ā-mi* (cp. 'Gk. Verb' p. 192). — Among the Greek formations from the original root we may mention *βω-μό-ς* which is proved to be related by the older meaning, preserved in Homer (especially η 100), in which it approaches nearly to *βῆμα* and *βάθρον*, as also by the diminutive *βωμίς* 'step' (Herod. ii. 125). The root is expanded in various ways by added consonants, especially, beside the above-mentioned nasal, by *d* (*βά-δ-ο-ς*), by *t* in the Lat. *bē-t-ere* (also written *baetere* and *bitere*), which is found uncompounded in Pacuvius, Pomponius, and Plautus (Mercator 464 R.), as well as in several compounds (Brix on Plaut. 'Capt.' 377) which have the regular ĭ. The Lat. *ar-bĭ-ter* on the other hand comes from the simple rt. *ba* for *ga*, and its *t* clearly belongs, like that of *βα-τήρ* (Hesych.) and *ἐπι-βά-τη-ς*, to the suffix; on *ar*=*ad* see Corssen 'Ausspr.' i². 239. No doubt too *fun-ambu-lus*, *ambu-lā-re* are to be explained by a form *amb(i)-bu-lu-s*, so that here the root-syllable is represented by *bu*. — Since in *βά-δ-ο-ς* and *βα-δ-ίζω* we have a clear instance of an amplificatory *d*, some scholars have been tempted to connect with them the Lat. *văd-u-m* 'ford,' and *vā-d-e-re*. But since the Lat. *d* can just as well be the representative of a *dh* = Gk. *θ*, and since moreover *vă-d-u-m* corresponds in sound to the Skt. *gādh-á-m* of precisely equivalent meaning, which in the 'Pet. Dict.' is derived from the rt. *gādh* 'stand fast,' 'get a firm footing,' it will be better to regard it as one of the numerous *dh* expansions of the rt. *ga*. This is also Corssen's opinion ('Beitr.' 59). — The meaning of *βέβα-ιο-ς* is noticeable: it connects itself with the perfect-stem *βεβα* 'to have stepped out,' 'to stand firm:'

also that of βίβη-λο-ς, which, though with a different meaning, is a sort of passive to βέβαιος. — We are forbidden to compare the Goth. *gagg-an*, OS. *gâ-n* 'go' by the absence of the regular representative mute (Grassmann 'Ztschr.' xii. 132), and also the Lith. *žengiù* 'stride' which we can hardly separate from it. On both cp. Fick i³. 576.

635. βαθύ-ς deep, βάθ-ος, βένθ-ος, βυθ-ό-ς, βυσσό-ς depth, ἄ-βυσσο-ς bottomless, βῆσσα deep valley, gorge.
Skt. *gāh* dip oneself, bathe, *gāh-á-s* (adj.) bathing, (subst.) depth, interior, *gabh-īrá-s* deep, *gámbh-an*
474 depth, *gáh-ana-s* deep, *gáh-ana-m* depth, precipice, *gabh-á-s* or *gadh-á-s* fissure.

Benf. ii. 66. — It is no doubt right to connect βάπ-τω 'dip,' rt. βαφ, (βαφή, βάμμα, βαφεύς, perhaps the name of the river Βαφύρας), directly with βαθ. Here as elsewhere we have an early fluctuation of the aspirates. The counterpart of βαθ, to which belong also βῆσσα and Βᾶσσαι, is to be compared with a Skt. *gadh* which is now recognizable only in *gadh-á-s* (Schweizer 'Ztschr.' iv. 298), while βαφ may be compared directly with *gabh* in *gabh-īrá-s*, *gámbh-an*, but in the Skt. *gah*, *gāh* nothing is left but the pure aspirate breath. Otherwise Pott W. iii. 781. — There is considerable difficulty in βόθ-ρ-ος 'pit,' which is near akin to βαθ-ύ-ς in meaning, but also suggests *fod-i-o* by its sound. But it would be difficult to derive the rt. *fod* from *gadh*. On the other hand we meet also with a possible connexion in the Lith. *bad-aú*, ChSl. *bodą*, 'to prick.' — Fick i³. 688 separates these words and βαθύ-ς from the Skt. *gadh*, *gabh*, and regards *bhadh* as the root: it is only βάπτω that he takes to be related to *gabh*. On the forms with *v* see below p. 716. — The only Keltic word which Stokes connects ('Beitr.' viii. 302, cp. 'Corm. Gl. Transl.' p. 18) is the OIr. *bádud*, Cymr. *boddi* 'mergi.' The OIr. *baithis* 'baptism,' *baitsim* 'I baptize,' Cymr. *bedydd* 'baptism,' cannot be related as Ebel ('Beitr.' iv. 171) thinks, but probably are derived from *baptisma*.

636. βάλανο-ς acorn, peg, plug. — Lat. *glan(d)-s*. — ChSl. *želądĭ*, Lith. *gilĕ* acorn.

Pott i¹. 87, Benf. ii. 65, Schleicher 'Ksl.' 111, otherwise Miklos. 'Lex.' 194, Fick i³. 569. — Three families of language in which the meaning of the word is absolutely identical point to an initial *g*. — Cp. No. 637. — βάλ-ανο-ς belongs to the stem of ἔ-βαλ-ο-ν, *gla-n(d)-s* to βλή-μενο-ς. It is not easy to say what the suffix is in the Latin and Slavonic words.

637. Root βαλ (βελ, βολ) βάλλ-ω throw, intr. fall; βλή-μενο-ς, βλη-τό-ς hit, βλῆ-μα, βέλ-ος, βέλ-ε-μνο-ν

missile, *βελ-όνη* point, needle, *βολ-ή*, *βόλ-ο-ς* a throw, *βολ-ί(δ)-ς* arrow, sounding-lead. — Skt. rt. *gal* (*gál-ā-mi*) trickle down, fall away, *vi-gal* pour down (intr.), tumble down, *gal-ana-s* trickling, running (of liquid), *gal-a-m* water (? cp. note on No. 123). — OHG. *quillu* (preterite *qual*) scaturio, *quëllâ* fons.

Bopp 'Gl.,' Benf. ii. 291, Grassmann 'Ztschr.' ix. 28, Pott (doubtfully) W. i. 2, 443. — Brugman 'Morpholog. Unters.' i. 41, connects the Skt. *glā* 'feel oneself exhausted,' 'die away,' so that *gal* : *glā* : : *βαλ* : *βλη*, explaining the *ā*(*η*) in a new way—i. e. as being an expansion of the root. — Notwithstanding the remarkable difference of meaning I think the above comparison is warranted. For on the one hand, as regards the initial, we have to consider the Arcadian by-form *ζέλλω*, and also Hesychius's *ἔζελεν· ἔβαλεν* (Ahrens 'Aeol.' 351), and on the inscription from Tegea edited by Bergk (Halle 1860) and Ad. Michaelis (Jahn's 'Jahrb.' 83, 585) we find *ἐσ-δέλλω*=*ἐκ-βάλλω*. And this same *ζ* confronts a *β* in the other dialects in two words (Nos. 638, 640), for which an original *g* is clearly proved. For this see below 475
p. 491. On the other hand we have to consider, as regards the meaning, the manifold application of the rt. *βαλ* to water especially in *εἰς ἅλα βάλλων* (Λ 722), *εἰσβάλλειν* 'discharge itself' (of a river), *ἐμβολή* 'mouth of a river,' *ἐκβάλλειν* 'well forth,' *ὕδωρ συμβάλλειν* 'confluere,' *δάκρυα βάλλειν* 'shed tears' (δ 114, 198), and the remarkable intransitive use in the proverbial expressions *βάλλ' ἐς κόρακας*, *εἰς μακαρίαν* and in *βαλοῦσα ψῆφος* (Aeschyl. 'Eumen.' 751), and again in numerous compounds, among which *συμβάλλειν* 'meet,' 'fit,' along with *σύμβολον* deserves special notice. We can easily get from the meaning 'fall,' 'glide,' to that of 'slip away,' 'let slip,' 'let fly,' an arrow, etc. (cp. *ἰο-χέ(ϝ)-αιρα* No. 203), and this application of the root seems to have been the source of its extended use. *βέλ-ε-μνο-ν* is a participial form like *τέρ-ε-μνο-ς*, *μέδ-ι-μνο-ς*, *τέρ-α-μνο-ς*. *βάλανος* too (No. 636) belongs here as 'something that has fallen away.' The connexion with the Lat. *volare* conjectured by Leo Meyer 'Vgl. Gr.' i. 37 has been acknowledged in several quarters. Schweizer 'Ztschr.' xii. 303 finds support for this comparison in the Skt. *gar-út* 'wing.' He and Hugo Weber ('Jahn's Jahrb.' 1863 p. 591) remind us of the relation of *πέτ-ο-μαι* to *πί-πτ-ω* (No. 214). But I find a considerable objection to this in the fact that *vol-are* can hardly be separated from *vēlox* and *vēlites*, which have 'swiftness' as their characteristic meaning, and this meaning is quite foreign to the words collected here (cp. Corssen 'Beitr.' 59, i². 460).

638. *βαρύ-ς* heavy, *βάρ-ος*, *βαρύ-τη(τ)-ς* weight, *βαρέ-ω*, *ἐπιβαρέω* (Arcad. *ἐπιζαρέω*) burden, weigh down.

Skt. *gurú-s* (for *garu-s*, comp. *gár-ījas*) heavy, *gar-imán*, *guru-tā* weight, worth.

Lat. *grav-i-s*, *gravi-tā(t)-s*, *grav-ēdo*, *grav-ā-re*, *gravi-du-s*.

Goth. *kaur-s βαρύ-ς*, *kaur-itha*, *kaurein-s βάρος*, *kaur-jan βαρεῖν*, *ἐπιβαρεῖν*.

Bopp 'Gl.,' Pott W. iii. 714, Benfey ii. 291. — The agreement in meaning is complete; *gurú-s* is according to the 'Pet. Dict.' the opposite of *laghú-s* (No. 168) just as *gravis* is of *levis*. As regards the sound, *garu* must be regarded as the stem, whence was developed *gvaru*; the Arcadian form *ἐπι-ζαρέω*, which occurs also in Euripides, points to another softening, that of *g* to *gj* (cp. No. 637). Lat. *grav-i-s* for *garu-i-s*, cp. Skt. *tanú*, Lat. *tenu-i-s* (No. 230). — Perhaps it is right to connect also the Lat. *brū-t-us* ('*brutum* antiqui gravem dicebant' Paul. 'Epit.' p. 31), in which case Latin as well would show a *b* in this form. Cp. Lett. *grût-s* in Pott *ut supra*.—I have now discussed *γέρας* and the words related to it under No. 129 b. — The Gk. words in *β* must have some affinity with *βρί* (*ἐπὶ τοῦ μεγάλου* Hesych.), *βρι-αρό-ς*, *βρίθ-ω*, *βρῖθ-ύ-ς*, where the *ι* may be compared with that of *τρί-β-ω* by the side of the rt. *τερ*: also with *βρίζειν* 'nod,' 'fall asleep' (cp. *οἴνῳ βεβαρηότες*). — The objections of Heinr. Schmidt 'Synon.' i. 465 do not convince me: cp. Δ 223. It is not necessary that the original meaning should show itself in all uses of the words. Joh. Schmidt 'Voc.' i. 124 connects *βρίθω* with *βρενθ-ύ-ε-σθαι* 'hold up the head,' 'plume oneself.' But there is no notion of heaviness in the latter word, though it is unmistakeable in the former; e. g. at Π. 384, *ὡς δ'*
476 *ὑπὸ λαίλαπι πᾶσα κελαινὴ βέβριθε χθών*, cp. Plato 'Phaedr.' 247 *βρίθει δ τῆς κάκης ἵππος μετέχων, ἐπὶ τὴν γῆν ῥέπων καὶ βαρύνων*. The same objection stands in the way of the combination made by Fröhde in Bezzenb. 'Beitr.' i. 250. Cp. 'Gk. Verb' p. 501. The Goth. *au* by epenthesis (Delbrück 'Ztschr. f. d. Philol.' i. 148). — In a note to Goid². p. 91 Stokes connects the OIr. *goire* 'pietas,' *goiriu* 'magis pius' (Z². 275), and on the other hand ('Beitr.' vii. 41) *gur* 'sorrowful.'

638 b. *βασ-τάζειν* lift, carry, *βάσ-ταγμα* burden. — Lat. *ger-o* (rt. *ges*), *ges-tu-s*, *ges-tā-re*, *ges-tā-men*, *ger-ō(n)* bearer. — Goth. *kas* cask, ON. *kas-ta* carry, throw, Eng. *cas-t*.

Fick i². 569, Bugge 'Ztschr.' xix. 429, Van. i. 223, Zimmer 'Nominal suff. *a*' p. 71. — *βαστάζειν* is a frequentative like *ges-tā-re*.

The Lat. *vas*, probably for **gvas*, bears to *βασ-* the same relation as that of *ven-io* to *βαίνω*. Still it is hard to account for the *s* between the two vowels in *vas-is*, *vas-a*. It is probably related to the rt. *βα* (cp. the Zd. *jah* 'go,' 'come') in a causative sense.

639. *βία* force, strength, *ἀντί-βιο-ς* fighting against, *ὑπέρ-βιο-ς* overpowering, overbearing, *βιά-ω*, *βιάζ-ο-μαι* overcome, *βία-ιο-ς* forcible, violent.

Skt. *ǵi* (*ǵáj-ā-mi*) conquer, overcome, *ǵjā* trans. overpower, intrans. to be overwhelmed, subst. *ǵjā* (fem.) excessive power, extravagant pretensions, *ǵjā́-jas* (isolated comparative) superior, stronger, older. — Zd. *ji* overpower.

Pott W. i. 61, 558, P. W. iii. 154. — I doubt much whether this rt. *gi*, *gvi* has anything in common with the stem *ϝι* (*ϝί-ς*) discussed at No. 592. — *super-b-us* closely resembles *ὑπέρ-βιο-ς*, and since *j* in the middle of a Latin word does now and then disappear after a *b* (dat. and abl. *-bus* = Skt. *-bhjas*), it is easy to bring the two words together. But I now see I must allow that Schweizer is right, in expressing doubts as to this comparison 'Ztschr.' xii. 303. The second element of the Lat. word might be the rt. *ba* (No. 634), or even the rt. *ju* (cp. also Corssen 'Beitr.' 61). — Pott connects also *βῖ-νεῖν* 'ravish,' reminding us of the Skt. *ǵi-nā́-mi* the pres. to *ǵjā*, and Fick i³. 570 the Lat. *vie-sce-re* 'grow old,' as an intransitive to *βιᾶν*. Cp. Brugman 'Morpholog. Unters.' i. 6, where he is probably right in taking the rt. *gi-ā* to be an expansion of *gi*.

640. *βί-ο-ς*, *βί-ο-το-ς*, *βι-ο-τή* life, way of life, livelihood, *βιό-ω* (aor. *βιῶ-ναι*, Ep. fut. *βεί-ο-μαι*, *βέ-ο-μαι*) live.

Skt. *ǵīv* (*ǵī́v-ā-mi*) live, *ǵīv-á-s* living, *ǵīv-á-tha-s*, *ǵīv-i-tá-m* life, *ǵīv-ā́-tu* (fem.) life, means of life. —*ǵinv* (*ǵinv-ā-mi*) stir (intrans.), revive (trans.). — Zd. *jî* and *jîv* live, *jîv-ya* living.

Lat. *vīv-o*, *vīv-u-s*, *vīt-a*, *vic-tu-s*.

Goth. *qiu-s* living, *ga-qiunan ἀναζῆν*, OHG. *quëk*, MHG. *quicken* revive.—ON. *kvikv-endi* animal.

ChSl. *živ-ą* vivo, *živ-ŭ* vivus, *živ-o-tŭ* vita. — Lith. 477
gyv-en-ù live, *gýv-a-s* living, *gyv-a-tà* life, livelihood.

OIr. *bíu*, *béo* vivus, *beothu*, *bethu*, gen. *bethad* (st. **bivatat-*) vita, *biad*, gen. *biith* (st. **bivata-*)

victus; Cymr. *byw* vivus, *bywyt* vita, *buyt*, later *bwyd* food.

Bopp 'Gl.,' Pott W. i. 746, Benf. i. 685, Schleicher 'Ksl.' 135, Corssen i². 389, Ebel 'Beitr.' ii. 160, Stokes 'Ir. Gl.' 113. — The original initial *g* became *gv*, which explains the Gk. *β* and the Lat. *v*. An attempt has been made to separate *βίο-ς*, *βίο-το-ς* from *ǵīv* and to refer it to the shorter rt. *gi* (Grassmann 'Ztschr.' ix. 27). But the complete identity of formation between *βί-ο-το-ς*, the Skt. *ǵīv-á-tha-s*, and the Lith. *gyv-a-tà*, and the difficulty of explaining the *o* if there was no consonant after the *ι*, make it far more probable to my mind that we ought to assume for Greek a stem *βιϝ* of which the *ι*, probably long at first, was naturally shortened before the vowel. *βείο-μαι* ('Gk. Verb' p. 468) or *βέο-μαι* must be a present-form of the lengthening class, and so for **βειϝο-μαι*. *ζάω* is discussed on p. 491, and the guttural that shows itself in *vixi*, *victus* on p. 597. — Otherwise Max Müller 'Ztschr.' xv. 217, against whom see Pott W. i. 756.

641. *βιό-ς* bow. — Skt. *ǵjā*, Zd. *jya* (f.) bowstring.

Bopp 'Gl.,' Pott i¹. 205, 'Pet. Dict.,' Fick i³. 570. — Perhaps the Lith. *gijė*, 'thread' in weaving, 'mesh,' 'noose' is related. Cp. *νεῦρον*, *νευρά* No. 434. — *βίος* is clearly distinguished from the *νευρά* at Δ 125, and has accordingly shifted its meaning. — Otherwise Max Müller 'Ztschr.' xv. 216.

642. *βο-ή* call, cry, *βοά-ω* call out.

Skt. rt. *gu* (reduplic. *ǵō-gu*) make to sound, proclaim — (intensive 'shout'), *gāu-s* speech, the goddess of speech.

Lat. *bo-ĕ-re*, *bov-ā-re*, *re-bo-āre*; *bov-ī-n-āri* abuse.

ChSl. *gov-orŭ* *θόρυβος*, *govor-i-ti* *θορυβεῖν*, *θρυλλεῖν*.

OIr. *guth* vox (st. **gutu-*), *gute*, *gutte* vocalis (for *guthide*).

Aufrecht 'Ztschr.' i. 190, Miklosich 'Lex.' 133, Corssen 'Beitr.' 63, Pott W. i. 738. — As elsewhere the Lat. words agree in their initial with the Gk. ones. In meaning *clamore bovantes* in Ennius ('Ann.' 571 Vahlen) comes nearest to the Gk. *βοᾶν*, whose *ο* is shortened from *οϝ* as in *βοϝ-ός* = *bŏv-is*. — *bov-īnā-tor* according to Gellius xi. 7 *tergiversator* seems originally to have meant 'crier,' 'swaggerer,' cp. Döderlein 'Synonym. u. Etymol.' vi. 41, where as regards the formation of the word *coquīnare* is aptly compared. — Aufrecht conjectures that *ἴ-γο-ο-ν*, *γό-ο-ς*, *γοά-ω* 'wail,' 'howl,' are to be referred to the same rt. *gu*

and have kept the guttural; γό-η(τ)-ς 'wizard' perhaps belongs to these (cp. *incantare*, Fick i³. 572). With γό-ο-ς (for *γόϝ-ο-ς) Bugge (Bezzenb. 'Beitr.' iii. 119) compares the Gothlandic *kau-ma* 'howl,' cp. OHG. *chû-mo* 'wail,' Fick iii³. 38. — Cp. No. 136.

643. Root βορ βι-βρώ-σκ-ω, βε-βρώ-θ-ω devour, βορ-ά meat, βορ-ό-ς gluttonous, βρῶ-μα food, βρω-τήρ eater.
Skt. rt. *gar* (*gir-ā́-mi gil-ā́-mi*) swallow, *gara-s* (adj.) at the end of compounds, swallowing, (subst.) drink.
Lat. *-vor-u-s* (*carni-vŏru-s*), *vorā-x*, *vorā-re*, *de-vora-re*, *vorā-go*.
Lith. *gér-ti* drink, ChSl. *grŭ-lo* throat, *žrĕ-ti* de- 478
glutire.
OIr. *gelid* consumit, inf. *gleith*.

Pott W. ii. 627, 238, Bopp 'Gl.,' Fick i³. 562. — Latin has here preserved only a *v* from the *gv* that was developed from *g* (cp. No. 126, Corssen i². 87). Still the old *g* appears in the form *gur-g-e(t)-s*, an instance of broken reduplication, which is to be compared with the Skt. *gár-gar-a-s* 'whirlpool,' also in *gur-gul-io* 'gullet.' Other words which have preserved the same *g* are γαρ-γαρ-ίζειν 'gargle,' Lith. *ger-klĕ* 'gullet,' γαρ-γαρ-εών 'uvula,' γέρ-γερ-ο-ς· βρόγχος (Hes.), probably also the Lat. *gul-a* (cp. Skt. *gala-s* 'throat,' 'neck,' OHG. *kĕla* Delbrück 'Ztschr. f. d. Philol.' i. 149) along with *glu-tī-re*, *in-gluv-ie-s* (Joh. Schmidt 'Voc.' ii. 290). Pictet i. 412 adds the Lat. *glis* (gen. *glir-is*) 'dormouse,' comparing it with the Skt. *gir-í-s*, *gir-ikā* 'mouse.' βάρ-α-θρο-ν (Ahr. 'Aeol.' 232) is certainly formed from this root; it agrees with *gurges* in meaning 'chasm,' 'abyss,' and may moreover be compared with *vorago*, and its Aeolic form shows a ζ in the place of the β of the other dialects as in No. 637 (Döderlein 'Gl.' 2439). — The rt. *gras* which in Skt. means 'swallow' (*grás-ā-mi*), may be regarded as an expansion of the rt. *gar* by *s*; it may be traced in the Gk. γρά-ω (Callim.) 'esse,' Hesych. γρᾶ· φάγε Κύπριοι, and perhaps in the Lat. *grā-men*. — Probably too the OIr. *bráge*, gen. *bráget* 'neck' belongs to this root, and reminds us especially of the Lat. *gurges*, OHG. *krage* 'neck,' 'gullet.'

644. βοῦς ox. — Skt. *gāu-s* (st. *gav*). — Lat. *bō-s* (st. *bov*). — OHG. *chuo* cow. — ChSl. *gov-ędo* ox. — OIr. *bó*, OCymr. *buch* (pl. *biu*) vacca.

Bopp 'Gl.,' Pott W. i. 739, Ebel 'Beitr.' ii. 156, Stokes 'Ir. Gl.' 583, according to Miklosich 'Radd.' 17 and Aufrecht 'Ztschr.' i. 190 from

the rt. *gu* (No. 642) in the meaning 'bellow.' — Perhaps the word γαῖος or γαιός· ὁ ἐργάτης βοῦς, in Hesych. and other lexicographers, contains the old guttural. In that case it exactly corresponds to the Skt. *gavajá-s* 'bos gavaeus,' or to the adj. *gav-já-s* 'belonging to cattle.' — On the other hand βούβ-αλο-ς (most likely for βου-ϝ-αλο-ς) comes near to the Skt. *gav-a-las* 'buffalo' (Pictet i. 332), though they differ in meaning, as βούβαλο-ς and βουβαλί-ς in older authors mean a kind of gazelle. The Lat. *bū-bulu-s* again is used adjectively.

645. βρέφ-ος embryo, child, young. — Skt. *gárbh-a-s* embryo, child, young. Zd. *garewa* fetus. ChSl. *žrěb-ę, žrěb-ĭcĭ* pullus.

Pott W. iii. 793, Benfey ii. 139, Schleicher 'Ksl.' 111. — The often-compared (recently by Zimmer 'Nominal suffix *a*' 290) OHG. *kalp*, which is phonetically identical, is placed elsewhere by Jac. Grimm 'Gesch.' i. 33 (cp. Diefenbach 'Vgl. Wtb.' ii. 436) in consideration of the Gothic *kalbô* 'young cow' (δάμαλις). This only confirms us in the comparison of the Gk. Ind. and Slav. forms of the word, which however agree in stem only, not in the suffix. The root is clearly *grabh* (later *grah*) 'concipere' ('Pet. Dict.'), so that βρέφ-ος is 'conceptum,' of animals (Ψ 266 βρέφος ἡμίονον κυέουσαν) and mankind. — The active to βρέφος is the Skt. *gárbh-a-s*, Zd. *garewa* in the meaning 'concipiens,'
479 'womb,' 'lap;' its correlative the Gk. δελφ-ύ-ς 'uterus' (cp. δολφό-ς· ἡ μήτρα Hesych.) with the softer liquid and dentalism, whence ἀ-δελφε-ό-ς (shortened to ἀδελφεός, ἀδελφός), = Skt. *bhrātá sá-garbh-ja-s*, i. e. 'frater couterinus' (Kuhn 'Ztschr.' ii. 129), and δελφίς (st. δελφ-ῖν) 'dolphin,' 'belly-fish' (δελφὶς μεγακήτης Φ 22), in Aeolic with a β βελφίς (Ahr. 41) which comes so much the nearer to βρέφος. Bühler 'Or. u. Occ.' ii. 337 raises against this derivation the objection that δελφύ-ς does not mean 'venter' but merely 'uterus.' But such an enlargement of the meaning is very natural, and hence in Hesych. and the 'E. M.' the word has γαστήρ given among its meanings, and γαστήρ itself very often stands for μήτρα. The Skt. *gárbha-s* too has had its application extended, inasmuch as, according to the 'Pet. Dict.,' like *alveus* it means 'the bed of a river.' On the Gallic proper name *Galba* which, according to Suetonius ('Galba' 3) meant 'praepinguis,' which Fick and others place here, cp. Angermann 'Stud.' v. 392. To this may be added Δελφοί, Βελφοί, Boeot. (now attested from an inscription, 'Athenaeum' iii. p. 479), named no doubt from its position in a deep ravine. With respect to Bühler's proposed derivation, which makes δελφ-ί-ς mean 'robber' (though the Skt. *grabh* only means 'take'), the derivation given above has this advantage that it

connects δελφίς with a word which exists on Greek soil. The dentalized st. δελφο occurs also in δέλφαξ 'young pig.' This agrees well in meaning, so that it properly means simply 'pullus' with a specialising suffix. It is natural to suppose that the Lat. *ger-men* arose from *gerb-men*, especially as the Skt. word means also 'the fruit of plants.' Is it possible that *grĕ-miu-m* too is of the same origin? Cp. Walter 'Ztschr.' xii. 405, Corssen 'Nachtr.' 236, i². 799.

To these examples of $\beta = g$ occurring in ordinary Greek may be added one that is confined to the Boeotian dialect, βανά, βανηκός = γυνή, γυναικός already discussed at No. 128. This form is specially remarkable because the Goth. *qvinô* of like meaning shows us the addition of the parasitic *v*, while the OIr. *ben* (in compounds *ban-*, e.g. *ban-chu* 'canis' Z². 854) shows also the fully developed labial, and it cannot be doubted that it comes from the rt. *gan*, ϝεν. Perhaps there is a word in ordinary Greek as well which shows the same root with a β. We may safely compare the former part of πρέσ-βυ-ς with the Lat. *pris-* in *pris-cu-s*, *pris-tinu-s*, and the by-forms πρέσ-γυ-ς and the Cretan πρεῖ-γυ-ς render it probable (Ahr. 'Dor.' 111) that the syllable βυ arose from γυ; the ει of the latter form cannot have arisen in this dialect by compensatory lengthening, and so points to a st. πρεις = Skt. *pra-jas* comp. of *pra* ('before'). The *i* too in *pris-cu-s* is long, as is shown by the apex on inscriptions (Brambach 'Orthogr.' 25), so that *pris* and πρεις are identical, πρες may have come from πρεις, like the New-Ionic ἀπόδεξις from ἀπόδειξις. γυ may well be only a phase of the rt. ϝα, ϝεν, and accordingly πρέσ-βυ-ς means 'born before.' The often-maintained derivation of this βυ from the rt. φυ cannot be reconciled with the dialectic forms, 480
still less the complete identification with the Lat. *pris-cu-s*, of which only the first syllable is related. Notwithstanding the somewhat antagonistic views of Schweizer ('Ztschr.' xii. 303), Sonne (ibid. 295) and Corssen i². 781 I still hold to this derivation.

On νιβ by the side of the Skt. *niǵ* it will be enough to refer the reader to No. 439.

As a matter of conjecture we may also class the β in ἔρεβος and its derivative ἐρεβεν-νό-ς (by the side of ἐρεμ-νό-ς, cp. rt. σεβ, σεμ-νό-ς) as the representative of an original *g*, as

is done by Leo Meyer 'Ztschr.' vi. 19 and Grassmann ix. 28. For the meaning 'darkness,' 'gloom,' which occurs especially in ἔρεβος ὕφαλον Soph. 'Antig.' 589 and in the derived adjective, and that not exclusively in its usual reference to the lower world, answers completely to the Skt. *ráǵ-as*, *raǵ-anī* in the attested meaning of 'darkness,' 'night' and to the Goth. *riquis* (σκότος) of like meaning. The prothesis of the ε would find its closest analogy in ἔρημος (No. 454). The only reason why I do not give this comparison as certain is that there appears not only before ν, in ὀρφ-νό-ς, ὄρφ-νη, ὀρφ-ναῖο-ς, ὄρφ-νινο-ς, which Fick i³. 498 connects with the ON. *iarp-r* 'fuscus,' but also before a vowel, in Ὀρφ-εύ-ς, a word which is closely connected with the gloom of Hades, a φ instead of the β, and the assumption just given leaves the φ unexplained. Hence it is after all possible that ἔρεβος is connected with ἐρέφειν 'roof over,' 'cover,' seeing that elsewhere darkness is regarded as a covering, and that in some cases, which have to be discussed below, β has arisen from *bh*. Cp. Pott ii². 393, Walter 'Ztschr.' xii. 387.

The stem ταρβ, which occurs in τάρβ-ος 'fright,' ταρβ-έ-ω 'fear,' ταρβ-αλέο-ς 'full of fear,' is compared by Kuhn 'Ztschr.' xiii. 454 with the Skt. *tarǵ* (*tárǵ-ā-mi*) 'threaten,' 'drive at,' 'revile,' *tarǵ-aṇa-m* 'a threatening.' In spite of doubts expressed by Pott W. iii. 462, the comparison has everything in its favour, both sound and sense. Fick i³. 598 adds also the ON. *thjarka* 'scold,' AS. *thrac-ian* 'frighten.' It is still easier to explain *tor-vu-s* to be for *torg-vu-s* and from the rt. *targ*. I prefer however to omit ταργαίνω· ταράσσω compared by Froehde 'Ztschr.' xiii. 453, along with several glossematic words of similar meaning, and also ταράσσω itself (st. ταραχ).

Aufrecht 'Ztschr.' xii. 400 points out an Indo-Germanic stem *varg*, with the meaning 'turn,' 'twist,' 'distort.' Hence the Skt. *vṛǵ-iṇá-s* 'crooked,' 'deceitful' (cp. δίκη σκολιή). The physical meaning has survived in the Lat. *valg-u-s* 'bow-legged' (cp. Corssen i². 543). Now to this corresponds the
481 Gk. ῥαιβό-ς 'crooked,' 'crook-legged.' The only question is how the diphthong is to be explained. Aufrecht seems inclined to assign to ϝραγ a weaker by-form ϝριγ which occurs in the Goth. *vraiqu-s* σκολιός, and to derive ῥαιβό-ς thence by

addition of sound (*Zulaut*). But when we reflect how seldom a Gk. *αι* arises from an *ι*, it appears more likely that we ought to assume a form *ϝραγ-ιο-ς*, from which *ϝραιγ-ιο-ς* is developed, like *εἰνί* from *ἐνί*, then by labialism *ϝραιβιο-ς* and then, like *εἰν*, *ῥαιβό-ς*. The connexion of *rū-ga*, for **vrū-ga* with this root is supported especially by the AS. *vrinc-le* 'wrinkle.' But about *verg-o* I am doubtful. Perhaps we ought to connect some of the words discussed on p. 351 under No. 513. Froehde 'Ztschr.' xxii. 255 explains the Lat. *ur-vu-s* 'crooked' as for *vorg-vu-s*.

The same scholar ('Ztschr.' xxiii. 312) identifies *σεμ νό-ς* (cp. *ἐρεμ-νό-ς*) along with *σέβας* with the Gothic *svik-n-s ἁγνός* 'pure,' 'chaste.' Phonetically there is no objection to this; on the contrary the preservation of the *σ* before a vowel indicates that the word once began with two consonants, and the more accurate account given in the 'Pet. Dict.' of the uses of the Skt. root make me hesitate about my former comparison of the word with the Lat. *sev-ē-ru-s* and the Skt. *sēv* (*sēv-ā-mi*) 'sojourn,' 'wait on,' 'attend to.' At the same time there is no inconsiderable difference between the meaning of *σέβειν*, *σέβεσθαι* 'reverence,' *σέβας* 'religious awe,' and that of the Teutonic words. The latter come nearer to *σεβ-ερό-ς· εὐσεβής, δίκαιος* Hesych. A form **segv-ēru-s* might help us to connect *sev-ēru-s*.

I do not venture to pronounce an opinion on the double forms *γλήχων* and *βλήχων* 'pennyroyal' and the Dor. *γλέφαρον* by the side of *βλέφαρον* 'eyelid.' Analogy and also the ChSl. *glip-aja* inf. *glip-ati* 'cernere' (Fick i³. 574) are on the side of the priority of the *γ*. Hugo Weber ('Etym. Unters.' i. 80, 85) has discussed these '*Wortbinionen*,' as he calls them, and comes to the conclusion that the forms with *γ* are altogether distinct from the forms with *β*. But who will believe that language had two names for the same plant and the same part of the body, formed by the same suffix from different roots? Where a word begins with more than one consonant there occur, as we shall often find, particular letter-changes for which complete analogies cannot always be found.

C.

There is only one root in which we can be sure of φ as the representative in ordinary Greek of an original *gh*, i. e. νιφ from *snigh*, discussed at No. 440, where its representatives with gutturals are adduced. The change from *gh* to φ pre-
482 supposes a middle step *ghv*, clearly established by the Gothic and Slavonic *hv*. (Cp. Fick i³. 828, Ascoli 'Lautl.' 157.) It is to be noticed that this is the only instance of *hv* before a vowel in the middle of a word, and that the Latin forms with *gu ningu-em*, *ningu-it*, with the medial which regularly represents the aspirate, actually show us the group of sounds from which the Gk. *νίφ-α*, *νίφ-ει* arose.

The interchange of χ and φ in Greek itself is treated of by Lobeck 'Rhemat.' 31, with especial reference to the numerous instances where an initial φλ answers to χλ. In particular cases χ may really have been transformed to φ, e. g. in *φλιαρό-ς* a by-form of *χλιαρός* (Hesych.), but it would be very rash to make this a sufficient reason for connecting Nos. 197 and 412, though they are of kindred meaning. Perhaps we may venture to place *ἐλαφ-ρό-ς* under No. 168 with *ἐλαχύ-ς*; at any rate the meanings present no difficulty. This view might find some confirmation in Hesychius's *ἐλαθρά· ἐλαφρά*, in so far as it would serve to establish the variety of the form assumed by the aspirates. Hugo Weber ('Jahn's Jahrb.' 1863 p. 593) prefers to consider the forms separate in all these cases, and is not staggered by the strangeness of the coincidence that words of exactly the same meaning and even with the same suffix should have come from different stems. Joannes Grammaticus gives *αὐφήν* = *αὐχήν* as Aeolic (Ahrens 42). We shall recur to this form below at p. 592 in connexion with Theocritus's *ἄμφην*. — Conversely the Thessalians said *δαύχνη* for *δάφνη* (Ahrens 'Aeol.' 219). The priority of the χ is probable here too if we consider the general relation of the labial consonants to the gutturals, and agrees with Max Müller's connexion of *Δάφνη* in the sense of 'the morning glow' ('Oxford Essays' 1856 p. 57), with the Skt. *dah-ana-s* 'burning,' from the rt. *dah* (*dagh*) 'burn,' which gives the Daphne myth an ingenious interpretation. If we only saw

how the Morning Dawn became the Laurel! Max Müller answers: 'by mere homonymy' ('Lect.' ii. 502) *δάφνη* 'burning glow' became identified with *δάφνη* 'laurel,' which was so-called because it burns easily. Cp. Hehn.[3] p. 525. — W. H. Roscher calls my attention to Hesychius's glosses *καφάζειν· καχάζειν* and *κωφεύειν· κωχεύειν*. In the former case the priority of the guttural is attested by *cach-innu-s* and the (unauthenticated) Skt. *kakh* (*kákh-ā-mi*) 'laugh,' in the latter by *ἀνα-κωχή* and the related words. — There are one or two trustworthy instances of a Latin *f*, as the representative of an older *gh*, especially *fel* = *χόλος* (No. 200) and *fri-are* = *χρίειν* (No. 201). Cp. Corssen i[2]. 159.

It is hardly safe to pronounce the words *ἔχι-ς* (No. 172) and *ὄφι-ς* (No. 627) identical, because the two words have not exactly the same meaning, *ὄφις* being the genus 'serpent,' *ἔχις* 483
the species 'adder' (Schol. on Eurip. 'Orest.' 479, Lobeck 'El.' ii. 364), and because both existed side by side in the same dialects. So that we have here quite a distinct case from that of *γλήχων* and *βλήχων* discussed above.

Froehde in Bezzenberger's 'Beitr.' iii. 12 ff. tries to establish *φ* in a number of other words as the successor to *gh*, e. g. in the rt. *ἀλφ* (No. 398), which he identifies with the Skt. *argh*, *arh* 'bring in,' 'fetch,' 'be worth' (cp. No. 165). There is much to be said for it, but there is a difficulty in *ἀνέρες ἀλφησταί*: also I do not see how to separate the Skt. *ṛbhú-s* 'clever' from the rt. *ἀλφ*. Both Froehde and Fick ii[2]. 175 connect *φρίσσω* (rt. *φρικ*) with the Sabine *fircu-s*, Lat. *hircu-s* and *horrere*, and the former holds that the OHG. *niero* (No. 435) proves that *νεφρό-ς* must have had a guttural originally, for though a *g* might have fallen out from the Teutonic word, a *b* could not.

d.

We have next to consider whether Labialism has at all extended its influence into the region of the dental consonants. As far as I know it has never been maintained that a Gk. *π* ever corresponds to an original *t*. And it would be hard to find any ground for such a view. Where an Aeolic *π* corresponds to a *τ* in the other dialects there is generally, as Ahrens

(p. 41) has correctly remarked, a guttural clearly underlying both sounds. In one proper name, which we may here consider with advantage, τϝ passes into π, so to speak, before our very eyes. ΕΣΤϜΕΔΙΙΥΣ is the legend on a coin from the Pamphylian Aspendos, that is, as Siegismund 'Stud.' ix. 93 shows, *Estvedius* = Ἀσπένδιος. *tv* here became *p* as in the provincial German *eppes* = *etwas*, and like the way in which *dv* in the Lat. *bi-s*, *bī-ni* became *b*.

The same is the case with some words in which a dialectic β corresponds to an ordinary Greek δ, e.g. in the case of βελφίς and Βελφοί mentioned at No. 645. — The origin of ὀβελός is uncertain, and hence it is uncertain also whether the Doric form ὀδελό-ς or the ordinary Greek form is the older one. Perhaps the word belongs to βέλος, βελόνη (No. 637); if so β and δ both came from an older *g*. — Since we see from No. 271 that in δέλεαρ the δ belongs to the root, we shall have to agree with Ahrens in reference to the Aeol. form βλῆρ in assuming here a natural transition from δ to β, because δλ is a combination never allowed in Greek. We should have here then a real instance of δ becoming β, but it happens in a combination of sounds, and combined consonants
484 are not under the same laws as simple ones. — Βωδών given as the Thessalian equivalent of Δωδώνη (Ahr. 'Aeol.' 219) may easily have been connected with the name of the god so highly honoured there, and so with the stem ΔιϜ (No. 269) — Βώδων being for Δ(ι)ϜώδΩν — but the ω and the origin of the second syllable would still be obscure. (Otherwise Preller 'Gr. Myth.' i². 96, Unger 'Philol.' xxiv. 397.) — With reference to the word σάνδαλον which in Aeolic was σάμβαλον, Schwabe 'De deminutivis' p. 83 has shown that it was probably borrowed from the Persians (*sandal*, 'calceus'). This would bring the fluctuation of the medial under the head of those double forms which arise so easily in the case of foreign words.

In the case of the labial aspirate contact with the dental region is more frequent. Every one knows how readily the dental aspirates change to labial aspirates in the Italian languages. With reference to these languages Ascoli suggests an explanation (mentioned above on p. 424) which rests on the assumption that it was not the aspirates themselves but only

the spirants that arose from them which changed the organ of articulation. Cp. Nos. 306, 307, 309, 311, 312 b, 314, 316, 319, 320, 325. As analogous to this movement we must consider the occurrence in the Aeolic dialect of φ = θ, to some extent in the same stems and roots; e.g. the Thessalian φήρ, φηρίον, as to which Ahrens ('Aeol.' 42, cp. 219) has collected the testimonies of the old grammarians. These forms are supported by the Thessalian proper name Φιλόφειρος (ει Thessal. and Boeot. = η) in No. 25 of the 'Inscriptiones ineditae,' published by Ussing (Havniae, 1847). The meaning of the name is clearly 'lover of the chase,' and strengthens the old assumption that the Thessalian name for the Centaurs, Φῆρες, which Homer uses, is identical with θῆρες. To this we must add the proper name Φετταλός, occurring on a Theban inscription (Beermann 'Stud.' ix. 63), cp. *fĕra* (No. 314); perhaps Ahrens is right in assuming a φρόνο-ς = θρόνος in ποικιλόφρον' (Sappho 1) cp. No. 316; φοίνα = θοίνη 'banquet,' which only occurs at Alkman fr. 24 B³: φοίναις τε καὶ ἐν θιάσοισιν, where it may easily be an Aeolism. θοίνη, which I formerly connected with θύειν 'sacrifice,'—a comparison which involves some questionable assumptions—is best connected with the Skt. rt. *dhi* (*dhinó-mi*) 'satiate,' 'delight' ('Pet. Dict.,' Van. 407). The substantive *dhénā*, which Fick i³. 631 regards as completely identical with θοίνη, means ('Pet. Dict.') in the sing. only 'milch-cow,' in the plur. *dhénās* 'a milk-drink' as well. — φαρ-υ-μό-ς· τολμηρός, θρασύς (Hesych.) has already been discussed in its relation to θρασ-ύ-ς under No. 315. φαρυ-μό-ς may easily be for *φαρρυ-μο-ς, *φαρσυ-μο-ς, as Θαρύ-μαχο-ς is without doubt for *Θαρσυ-μ. The word is an expansion from the shorter stem θαρσυ, like ἥδυ-μο-ς from ἡδυ. — All 485
these words seem to belong to the Aeolic dialect. — In the Epirot inscriptions discovered by Karapanos ('Dodone et ses ruines,' Paris 1878) there occurs, along with many instances of θεός, θύειν, an occasional φεός, φύειν ('Sixième catégorie,' No. 3, τίνι κα φεῶν ἢ ἡρώων εὐχόμενοι καὶ φύοντες ἄμεινον πράσσοιεν). This looks as if the Epirot labialism was a provincialism, which arose after the aspirates had passed into spirants, and is of the same nature as the modern Greek *Fibae* = Θῆβαι, Russian *Feodor* = Θεόδωρος.

It is true that for the early period from which we get φήρ this assumption is open to grave objections. Perhaps in this case the *v* of the rt. *dhvar*, which we conjectured at No. 314 for θήρ, was the cause of the change. — φλάω by the side of θλάω ('crush,' 'press hard') is ordinary Greek, as also is φλίβω by the side of θλίβω of similar meaning, related to the Lat. *flāg-ru-m*, *con-flīg-e-re*. Fick here calls in the aid of the Goth. *bliggvan* 'strike' to prove that θ came from φ (i³. 703). It might not be easy to prove this, but I see no clear grounds for the contrary assumption.

2. Dentalism.

We have seen above how the change of an original guttural consonant into the corresponding labial admits, in most cases at least, of the explanation, that the labial spirant *v* affixed itself to a particular class of gutturals, and then exercised in time a retrospective labializing influence. But the gutturals have another tendency as well, namely that towards a union with the spirant *j*. This *j* developes most naturally out of a following *i*. The guttural shifts involuntarily forwards towards the palate and becoming palatal produces the palatal spirant between itself and the vowel to which this spirant is related. These changes have been thoroughly discussed by Rud. v. Raumer ('Aspiration und Lautverschiebung' p. 37), by Schleicher in his 'Zetacismus,' and by Ascoli ('Lautlehre' 76). The difference in the pronunciation of the Latin *c*, when followed by *e* or *i* is most minutely discussed by Corssen i². 49 ff. Rud. v. Raumer, p. 93, is clearly right in his explanation of the process. He suggests that the *c* was in these cases pronounced as a palatal, i. e. like *kj*. It was not till the language had reached a further stage of developement that the soft palatal spirant *j* was replaced by the dental sibilant, and this in time produced the assibilation of the original letter, of which we have no clear proofs till a somewhat later period of Latin. It can hardly be doubted that the same principle
486 accounts for the origin of the palatal consonants in Sanskrit. Here, however, we must by no means look for the palatalizing

influence in the following vowel[1], but must assume an involuntary shifting of the *k* towards the forward part of the mouth, best explained by the assumption of a parasitic *j*. In Greek we must assume for a certain period, which lies beyond the time of historical tradition, changes of a similar kind. We shall have to show below how this is the only assumption that will account for the origin of ζ from *γj* and of the σσ (Boeot. ττ) from *kj*. But this same hypothesis serves also to explain the undoubted occurrence of τ in a number of instances as the representative of an older *k*. We call this change Dentalism, though we consider it to have arisen throughout from an older Palatalism. Dentalism is therefore here the second stage of phonetic disfigurement. A still greater change arises when the sound after its first transformation produces a neighbouring sibilant out of the palatal spirant, and this is the explanation of the phenomena which Schleicher calls Zetacism. On finding then that a Gk. τε corresponds to an Indo-Germ. *ka* we assume the following steps in the process of transformation: κε κjε τjε τε. In the same way δ is connected with γ by the help of an intermediate *γj δj*. The assumption of the latter change is supported by Hesychius's ζεύσασθαι· γεύσασθαι, confirmed by ζεύω· γεύω ('E. M.'). For since it is well known that ζ does arise out of *δj*, we can here all the more certainly infer the existence of the conjectured intermediate *δj*. This process serves to put in a clear light the parallelism between Dentalism and Labialism. The former, however, is still rarer in Greek than the latter. Undoubtedly too it is no mere chance that the κ which changes to τ is almost always followed either by an ι or by the allied

[1] F. de Saussure in the 'Mém. de la soc. de linguist.' iii. 359 acutely brings his attempt to demonstrate an original variety of *a*'s into connexion with his question. We should then be able to explain the distinction between *árka-ti* and *árka-s* and the like by taking the *a* in the first case as of the nature of an *e*, in the second as of the nature of an *o*. It remains to be seen if this theory admits of general application. Somewhat similarly Collitz in Bezzenb. 'Beitr.' ii. 305. Osthoff 'Morpholog. Unters.' i. 116 propounds the same view as held by Verner. — We may now refer to the paper of Collitz and Hübschmann ('Ztschr.' xxiv. 409) already mentioned on p. 87.

vowel ε. It looks therefore as if the following vowel was not without its influence on the change of sound. It is remarkable that the Dentalism of the tenuis is almost entirely confined to those stems which show Labialism under other circumstances, and that the change cannot be said to be in
487 any way peculiar to any one dialect. The τ in τε and τις is ordinary Greek, while that in τέσσαρες is Doric and Ionic. Side by side with the Arcadian ἀπυτεισάτω comes the Cyprian πείσει. It will be well to compare with what has been said on this subject the more elaborate discussions by Kuhn 'Ztschr.' xi. 303 ff. and Ebel xiii. 275. Though their views differ somewhat from mine, they agree with me as to the facts of the case. We now proceed to discuss particular instances.

a.

A Greek τ corresponds in the following cases to an Indo-Germanic *k*, which in the cognate languages likewise has remained but seldom unchanged, especially in Sanskrit, where it has become *ḱ*, and in Latin, where it has become *qu*.

πέντε has already been discussed in its relation to the forms of the cognate languages at No. 629, where it was placed on account of its initial letter. The guttural in the middle of the word has been retained pure only by the Lithuanians in *penkì* and the Irish in *cóic*; in Latin it has become *qu*, in the Aeol. and Osc. dialects *p*, and even in ordinary Greek the labialism is apparent in πέμπ-το-ς, πεμπ-άζειν. It is only a chance that the τ of πέντε in πεντά-πολις, πεντή-κοντα finds a companion in the ChSl. *pętĭ*, for *-tĭ* is here, as in *šes-tĭ*, *devę-tĭ* a nominal termination corresponding in its use to the German *-heit* (Schleicher 'Ksl.' 186).

647. τέ and. —Skt. *ḱa*, Zd. *ca* and, also. — Lat. *que*, Osc. *p* in *nei-p* = *nē-ve*. — Goth. *h* in *ni-h* = ne-que. — OIr. *ch* in *na-ch* non.

Bopp 'Vgl. Gr.' ii². 213, where also is compared the Goth. *uh*, which resembles the particles given above in being enclitic and has the same meaning as *que*, but its *u* is not satisfactorily explained. Sonne 'Ztschr.' xii. 280 is probably right in analysing *uh* into the pronominal stem *u* and an affixed *h* = Indo-Germ. *ka*, Skt. *ḱa*. — The derivation of this particle from the interrogative stem (No. 631), first

suggested by Bopp, is rendered probable especially by the indefinite use of *que* in *quis-que, cum-que*, etc. This *que* is represented in Osc. by *pid* (No. 650), in Umbr. by *pei* or *pe* (*pum-pe* = *cum-que*). It may likewise be assumed that the termination τε in the temporal adverbs ὁ-τε, τό-τε, πό-τε belongs here, and consequently that the guttural has survived in the Doric ὁ-κα, τό-κα, πό-κα (Ahrens 'Dor.' 337). Cp. Schoemann 'Quaestionum grammaticarum' cap. 1 et 2 Greifswald 1865. —With the Lat. *quis-que* cp. OIr. *cá-ch*, Cymr. *pau-p* 'every man,' OIr. *ca-ch*, *ce-ch*, Cymr. *po-p* 'every,' OIr. *ne-ch*, Cymr. *ne-p* 'quisquam,' 'ullus,' but (e.g.) the gen. sing. fem. *cacha* seems to indicate that this Irish *-ch* was an inflexional element.

647 b. τέλσ-ο-ν boundary furrow, boundary. —Skt. *kárshman* boundary, limit (?).

Delbrück 'Ztschr.' xvi. 273. — The word occurs three times in the Iliad (N 707, Σ 544, 547), and afterwards only in imitators, and the 488
old interpreters explained it by πέρας and connected it etymologically with τέλλω or τέλος. But it has the exclusive meaning of 'boundary furrow.' The rt. *kars* occurs in the Skt. *karsh*, Zd. *karesh* 'draw,' 'furrow' (verb), 'plough.' To this no doubt is related τέλσας· στροφάς, τέλη· πέρατα (Hesych.), στροφάς. that is τῶν βοῶν (cp. βουστροφηδόν). This trace of an Indo-Eranian verb for agriculture on Greek soil is remarkable.—As the Greek word is so isolated, as it is nearly always a Skt. *ḱ* that corresponds to the Gk. τ, and finally as connexion with τέλος is not impossible (cp. ἄξος, καῦ-σο-ς, Skt. *ghrą-sá*, *ǵē-shá*, Lindner 'Nominalbildung' 110), I have in this edition added a query.

648. τέσσαρ-ες (n. -α) four, τέταρ-το-ς, τέτρα-το-ς, τετράκις. — Skt. *ḱatvār-ás* (Zd. *cathware*) fem. *ḱatasr-as* four, *ḱatur-thá-s* the fourth, *ḱatús* four times. — Lat. *quattuor*, *quar-tu-s*, *quater*; Umbr. *petur-*. — Goth. *fidvôr* (in composition *fidur-*), OHG. *fior*, *vier*. — ChSl. *četyr-ije*, ord. *četvrŭ-tyj*, Lith. *ketur̀i*, ord. *ketvìr-ta-s*. — OIr. *cethir*, fem. *cetheoir*, *cetheora*, ord. *cethramad*; Cymr. *petguar*, *pedwar*, ord. *petguared* (fem.), *pedwyryd*.

Bopp 'Vgl. Gr.' ii². 69, Pott W. iii. 58, Ascoli 'Krit. Studien' 320, 340. — We must assume an Indo-Germanic *katvar* with the shorter by-form *katur*. The guttural remained unchanged only in Lithuanian. It appears with a labial adjunct in *quattuor*, in which the *tt* though well attested (Corssen i².175) cannot be accounted for etymologically.

We also find *quattor* with assimilation of the *v* (Ritschl 'Rhein. Mus.' viii. 309). Thence we arrive at the Umbr. *petur-*, which only occurs in compounds, at the Lat. *quadru*=*quartu* (*quartu-s* most likely from *quatru-tu-s*), at the Osc. *petor-a* (Fest. p. 206), at the Goth. *fidvôr* and *fidur* and at the Homeric πίσυρ-ες, Aeol. πέσσυρες (cp. Ahrens 'Aeol.' 409). Since we find σσ as well as υ in the latter form, it must be derived not from the shorter *katur* but from *katvar*, πέσσυρες being for πετϝαρες, whence the Boeot. πέτταρας. According to the rules of Aeolic, υ represents the *a*-sound, which appears dulled also in the Dor. τέτορ-ες for τετϝορες (τέττορες is suspicious, Ahr. 'Dor.' 279).—From *k* were developed by palatalism the Skt. *ḱ* and the Slav. *č*, along with which must be classed the Doric and Ionic τ, while σσ in τέσσαρε-ς is clearly for σϝ, for τϝ. — τρά-πεζα shortened for *τετρά-πεζα, τρυ-φάλ-εια according to Fick in Bezzenb. 'Beitr.' i. 64 for *τετρυ-φάλεια, *τετρυ = Lat. *quadru*. — The Ir. fem. *cetheoir* for a pre-historic *cetesor-es* corresponds admirably to the Skt. fem. *ḱatasr-as*.

649. Root τι τί-ω (τείω) pay, value, honour, τί-ν-ω pay, expiate, mid. (Hom. τί-νυ-μαι) get paid, exact a penalty, punish, τι-μή price, honour, τιμά-ω honour, value, τίμη-μα valuation, census, τιμη-τή-ς censor, τί-σι-ς penalty, regard (Theogn. 337).

Skt. *ḱi* (*ḱi-nṓ-mi*) arrange in order, pick up, gather, *ḱi* mid. (*ḱáj-ē*) avenge, punish, *apa-ḱi-ta-s* honoured. Zd. *ci* collect, seek, *ci* expiate, *ci-tha*, *ci-thí* penalty, *kaêna* revenge.

489 On the forms with ει τείω, Τεισίας, ἀποτείσει 'Gk. Verb,' p. 158, Gust. Meyer Bezzenb. 'B.' i. 82, Sauppe 'De tit. Tegeat.' Gött. 1876–77. τείω corresponds exactly to the Skt. *ḱájē*. — Benfey ii. 332 ff., Kuhn 'Ztschr.' ii. 387, Fick i³. 532, whom I cannot follow in their developement of the meaning, because it seems to me in spite of Pott's objections (W. i. 463) that the meaning 'pay' is the fundamental one for the Greek words. This appears most clearly in Homer, e.g. χ 218 σῷ δ' αὐτοῦ κράατι τίσεις, in ἀπο-τίνω (Θ 186), in τιμήεις, which almost universally means 'pretiosus,' 'costly,' and in the relation preserved by τιμή, τίμημα to the latest times, to payments of different kinds. The meanings branch out therefore in two directions—'to set a price on,' whence 'value,' 'estimate,' 'honour'—and 'to give a price for,' whence 'pay,' and in the middle 'get paid,' 'exact as penalty.' — There is considerable difference between this use and that of the Skt. rt. *ḱi*, of which the 'Pet. Dict.' gives four distinct meanings. Grassmann however ('Wörterb.' p. 444) decides in the main for

the explanation here given for the first *ki* 'put in a row,' which he separates completely from the second, which means 'perceive.' We see other instances in *ἀρ-ι-θμό-ς* and *num-eru-s* (No. 431, 488) of the developement of the idea of number from that of 'fitting,' 'arranging' in a row or otherwise, and for the notion 'punish' we find analogies in the rt. *νεμ* (*νέμεσις*) No. 431. From the cognate languages we may perhaps find a related word in *κοῖος*, according to Athen. X p. 455 d the Macedonian for 'number.' In ChSl. (Miklos. 'Lex.' 1117) we find *če-na τιμή* 'pretium,' *čen-i-ti τιμᾶν*, 'aestimare,' and *čin-ŭ τάξις* (in Russian the 'Tschin' is the order of the precedence of officials, cp. *τιμή* in the sense of an office). On the other hand *čĭt-ą ἀριθμῶ*, *ἀναγιγνώσκω* corresponds to the Skt. rt. *kit* which is apparently expanded by a *t*, though the meanings of the latter have taken another direction (Schleicher 'Ksl.' 99). — Is it possible that after all the Lith. *skait-ý-ti* 'count,' 'pick up,' *skaît-lius* (=ChSl. *čislo*) 'number,' has preserved what was the complete form of the initial letters? Benfey 'Or. u. Occ.' ii. 379 conjectures that *ski* was the full form of the root, but gives quite a different interpretation of it, connecting with it the Lat. *sci-o*. The latter, however, has I think been explained more simply at p. 109. From the same root arose by labialism the Cypr. *πείσει* discussed on p. 487 and apparently *ποινή*. — From Irish we have possibly a connexion in *cin*, gen. *cinad* 'debt.'

650. *τί-ς* n. *τί* interrog. pronoun, when enclitic, indefinite. — Skt. *ná-ki-s* nemo, *mā́-ki-s* (Zd. *mâ-ci-s*) nequis, *ki-m* quid? Zd. *ci-n-em* acc. s. = *τί-ν-α*, *ci-s-ca* quisquis. — Lat. *qui-s*, *qui-d*, Osc. Umbr. (indefin.) *pi-s*, *pi-d*, Osc. *pit-pit* (Festus) = *quid-quid*. —OIr. *cia* quis? Cymr. *pui*, *puy* quis?

Bopp 'Vgl. Gr.' ii². 207, Fick i³. 532. — All these forms are to be referred to *ki*, the weaker form of the interrogative stem; the stronger form is treated of at No. 631. Bopp is most likely right in adding to the list the pronominal enclitic adverb *kit* or *kid* which is attached to particular pronouns (*kaç-kit* 'aliquis') and with a variety of meanings to other words, and is perhaps the best correlative of the Osc. *pid* mentioned at No. 647. (Otherwise Boehtl. and Roth in the 'Pet. Dict.'). — On traces of this *i*-form in Slavonic cp. Schleicher 'Ksl.' 266 f. — As the double *π* in *ὅππως* was deduced at No. 631 from *κϝ*, *πϝ*, we must deduce the double *τ* in the likewise Homeric 490
and Aeolic *ὅττι* (Aeol. also *ὅττινας* in the acc. plur.) from *kj* and *tj*. So Schweizer 'Ztschr.' xii. 304, who points out that O. Müller gave

this same explanation in 1831. *ἄ-σσα* for *ἀ-τια ἀ-τja* from the expanded stem *τιο* which appears most clearly in the Lesb. *τίῳ, τίοισι* (Ahr. 'Aeol.' 127). Cp. below p. 608.

There is some doubt about the etymology of the Aeol. *πήλυι* = *τηλόσε* (Ahrens 41), to which may be added the proper name *Πηλεκλέας* from a Delphian inscription ('Ber. d. k. s. Ges. d. W.' 1864, p. 218). Keil indeed ('Rhein. Mus.' xix. 616) regards it as simply a mistake for *Τηλεκλέας*. The dialectic interchange of *π* and *τ* leads us to suppose that both sounds, as in the interrogative stem, originated in the guttural. But the Lat. *pro-cul* compared by Christ 113, which we must not separate from *cellere*, and in which we must assign the chief force to the preposition, as well as the Skt. *ḱirá-s* 'long' (of time, cp. the OIr. *cían* 'long'), and the rt. *ḱal* 'tremble' are too far removed in meaning. Even the superl. *ḱar-a-má-s* 'the last' is not after all equivalent to 'the farthest.' And since we meet the latter idea in the Lith. *tolì* (adv.) 'far,' 'a long way,' and again find other close connexions of the same words also with a *t* (Benf. ii. 256, Fick i³. 592), the whole comparison becomes a doubtful one, especially as it is not beyond the bounds of possibility that the different Gk. dialects developed the same idea from two distinct stems.

On the other hand there is one example which shows us *τ* on Greek soil by the side of *κ*. Lobeck 'Pathol. El.' i. 20 adduces from the 'E. M.' 48, 39, where Herodian is given as its voucher, the form *ἀκινάγματα* = *τινάγματα*, 'vibrations,' and from Hesych. *ἀκίναγμος· τιναγμός κίνησις*. With the help of a prothetic *ἀ* then the rt. κι (No. 57) survived in these forms, while it assumed the *τ* in the usual *τινάσσω* and its derivatives, clearly not without the operation of the neighbouring *ι*. Otherwise Fick i³. 593. — Sonne's conjecture ('Ztschr.' xiv. 331), that the variously-explained *τηλύ-γετο-ς* corresponds in its first factor to the Skt. *ḱā́ru-s* 'pleasant,' 'welcome,' is certainly temptingly satisfactory as far as meaning goes, but this kind of comparison of isolated words can never have much evidence in its favour. It is conceivable that the word may be related to No. 239 b, more particularly to *táruṇa-s* 'tender' and *τᾶλις*.

b.

There are but very few cases in which dentalism has changed an original *g* to *δ*. In most of them the different dialects vary to the extent of showing in some cases a *γ* or *β*, 491
and even *ζ* in the place of *δ*. Under this head comes the Arcad. *ζέλλω* = *βάλλω* rt. *gal* (No. 637), *ἐπι-ζαρέ-ω* by the side of *βαρύ-ς* for *γαρυ-ς* (No. 638), *δελφύς* and *δολφός* mentioned at No. 645, the latter of which corresponds letter for letter to the Skt. *gárbha-s*, possibly too *δέρεθρον· λίμνη ἀποχώρησιν ἔχουσα* (Hesych.), in so far, that is, as we can venture to identify this with *ζέρεθρον*, *βάραθρον* No. 643. In that case *ζ* arises from *dj* for an older *gj*, *δ* comes from *dj* by suppression of the *j*, and *ζέρ-ε-θρο-ν* is related to *δέρεθρον*, *ζέλλω* to *δέλλω*, as *ῥέζω* is to *ἔρδω* from the rt. *Fερρ* (No. 141). — The same is the relation between *ζεύσασθαι* and *δεύάσθαι*, both explained by *γεύσασθαι* (No. 131) in Hesych., the former probably Arcadian, the latter Cyprian (Gelbke 'Stud.' ii. 29). — Again *ζά-ω* belongs to the group discussed at No. 640. It stands for **δja-ω* and its most natural derivation is from the rt. *gi* (Zd. *ǰî* 'live;' cp. Grassmann 'Ztschr.' ix. 27, and Brugman 'Morpholog. Unters.' i. 7). The two synonymous stems *ζα* and *βιο* are then phonetically related: *ζα* arose by dentalism from the shorter rt. *gi*, *βιο* by labialism from the expanded *giv* (Skt. *ǰīv*). — To these examples of *ζ* representing *γ* Leo Meyer (i. 38) adds the remarkable form of the participle *πε-φυζότ-ες* which is confined to books *Φ* and *Χ* of the Iliad, explaining it by *πε-φυγ-Fοτ-ες*. The original existence of the *F* in the participial suffix is attested by the Skt. *-vā̆s*, *-vat*, but as a matter of fact the sound is nowhere to be found in any Gk. dialect, and must have been as good as extinct as early as Homer; for forms like *εἰδ-ότες*, *ἀρηρ-ότες*, *πεφευγ-ότες* cannot be reconciled with the existence of a *F*. It is improbable therefore that we should have in such a rare participial form the one single surviving trace of the old spirant. It would be possible indeed to bring forward the Hesiodic *λελειχ-μότ-ες* ('Theog.' 826) and derive its *μ* likewise from *F*, while the third of these rare perfect forms *μεμυζότε* 'rotting,' from the rt. μυδ, in Antimachus (Buttm. 'A. Gr.' ii².

31), does not admit of such treatment so readily. The change of *γϝ* to *ζ* in any case remains unproved. In *πεφυζότες* there is a further anomaly in the vowel of the stem, which is never short in the perf. partic. except before the feminine suffix (*ἰδ-υῖα*) and that of the middle (*πεφυγ-μένος*). Now since we can explain the *ζ* in the subst. *φύζα* (cp. *μᾶζα*) more simply by the help of the suffix *ια* (cp. *μαν-ία*) and since we find the same *ζ* in *φυζακινό-ς* (*N* 102) and in the later *φυζαλέος*, where there is no trace of a *ϝ*, it seems to me incomparably more probable that *πεφυζότες* along with its two comrades arises from the introduction into the verb of a noun-theme (*φυζα*,
492 *φυζο*), of the same kind as those we are compelled to assume in the case of the aor. *ἔχραισμ-ο-ν* from *χραισμο*=*χρησιμο*, of *θέρμ-ε-σθαι* 'get warm,' and of *ἥμαρτ-ο-ν*, *ἥλιτ-ο-ν* ('Gk. Verb' p. 408), or possibly from a pres. **φύζω* = Lat. *fug-io*. — The Laconian form of *γέφυρα* (discussed at No. 125) was *διφοῦρα* (Ahr. 'Dor.' 122, 124). We should here maintain the origin of the *δ* from *γ* more decidedly, if the root of the word were better established, and if there had not been also preserved the curious Theban *βλέφυρα* (Ahrens 'Aeol.' 174) though Beermann 'Stud.' ix. 58 ingeniously suggests that this is a mistake for *βδέφυρα*. In any case the word is very peculiar. — Still more doubtful is *δεῦκος* = *γλεῦκος*, which is said to be Aetolian (Schol. ad Nicandri 'Ther.' 625). Although the Lat. *dulcis* gives some support to the dental, it is possible after all that the whole form is only advanced to explain the Hom. *ἀδευκής*. Since, however, Apollonius Soph. in his Lexicon (cp. Hesych.) gives quite another explanation of *ἀδευκής* (*ἀπεοικώς*, *ἀπροσδόκητος*), the Aristarchian school seems to have known nothing of *δεῦκος*, and the stem-form which is presupposed has hardly any authority at all. — On the very doubtful tradition that *δᾶ* is a Doric by-form of *γᾶ* *γῆ* and appears also in *Δα-μάτηρ*, *Δη-μήτηρ* with dental instead of guttural, it is enough to refer the reader to Ahrens 'Dor.' 80. — We shall have to treat later of *δν* by the side of *γν* in *δνόφος* and *γνόφος* and of a few other cases.

In conclusion we should have a case of *δ* representing an original guttural at least in one tolerably widely ramifying root in ordinary Greek, if we were sure that Benfey (ii. 140) is

right in comparing the Gk. *δράσσομαι* with the Skt. *grah*, Ved. *grabh*. But, however great the agreement in meaning between *δράσσεσθαι* 'grasp,' *δραχμή* 'a grasp,' 'handful,' *δραγμίς* 'three fingers full,' 'a pinch,' and the Skt., the phonetic difficulty is just as great. For by the side of the χ of *δραχμή* we get a γ in *δράγμα* and actually a κ in *δράξ δρακός* 'hand,' with which M. Schmidt also puts *δάρκ-ες· δέσμαι* (Hesych.) i.e. 'bundles,' *manipuli*, *δράγματα*[1]. On the other hand we have already seen the rt. *grabh* ending in a labial in *βρέφος* and *δελφύς* (No. 645). The antiquity of the labial aspirate is attested also by the clearly related OPers. *garb*, Zd. *garew* 'take' (Benfey 'Die pers. Keilschriften' p. 80), Lith. *grĕb-ti* 'grasp,' ChSl. *grab-i-ti* 'carry off,' 'rob' (Schleicher 'Ztschr.' vii. 223, cp. Delbrück 'Ztschr. f. d. Philol.' i. 15), with which the Gothic 493
greip-an agrees in all but the tenuis. This shows the *h* in *grah* to be a remnant of *bh*, and we cannot give anything but *grabh* as the Indo-Germanic root, from which we could not arrive safely even at *δραχ*. But the only possible root to which we can refer the Greek forms is δρακ, whence *δράγ-μα* is formed like *πλέγ-μα* from the rt. πλεκ, *δραχμή* like *πλοχ-μό-ς*. To the rt. δρακ, which we thus arrive at, corresponds possibly—though this is a mere conjecture—with loss of its initial consonant, the Lith. *rìnk-ti* 'collect,' 'pick up,' 'gather,' and the Lith. *rank-à*, ChSl. *rąk-a* 'hand,' of like meaning with *δράξ* (Hesych. *δρακός· τῆς χειρός*); otherwise Lottner 'Ztschr.' xi. 181, Miklos. 'Lex.' 815. Perhaps too *δρέπ-ω* has been labialized and belongs here, though Pott (ii². 464) regards it as an expansion of the rt. δερ (No. 267). Hence *δρέπ-ανο-ν* 'sickle.' If so, the Coan promontory *Δρέκ-ανο-ν* is nothing but the older form of the oft-recurring *Δρέπ-ανο-ν*. So different is the road on which a strict observance of phonetic rules here compels us to travel.

Walter's conjecture ('Ztschr.' xii. 406), that *δύ-να-μαι* belongs to the rt. *gnā* (No. 135), *δί-δυ-μο-ς* to the rt. *gan* (No. 128), does not seem to me to carry conviction with it owing to the want of correspondence in the vowels, though it has the support of Bugge 'Ztschr.' xix. 422.

[1] The same consideration invalidates Fick's assumption of a rt. *δαρχ* (i³. 619). For there is no such thing as a 'dialectic' κ for χ.

C.

We have only one fairly certain instance of the change of an original *gh* into *θ*. It is noticeable that Latin in this case uses the labial spirant to represent the guttural, a fact which points to an early fluctuation of the organ of the initial aspirate (Ascoli 'Ztschr.' xvii. 340).

651. Root θερ *θέρ-ο-μαι* warm, glow, *θέρ-ος* summer, *θερ-μό-ς* warm, hot, *θέρ-μη* warmth, heat, *Θερμαί*, *Θερμά* (pl.) places with hot springs, *θέρ-μ-ε-τε* heat (pass. *θέρ-μ-ε-το*), *θερμ-αίν-ω* heat, warm.

Skt. rt. *ghar* (*ǵí-ghar-mi*, *ghṛ-ṇó-mi*) shine, *ghar-má-s* glow, warmth, OPers. *gar-ma-pada* a summer month, Zd. *gare-ma* warm, hot.

Lat. *for-mu-s*, *form-idu-s* hot, *for-nu-s* (*fur-nu-s*) stove, whence *forn-ax*.

Goth. *varm-jan*, OHG. *war(a)m*.

ChSl. *gr-ě-ti* *θερμαίνειν*, *gor-ě-ti* ardere. OPrus. *gor-me* heat.

OIr. *gor* warmth, fire, *goraim* I warm, burn.

Bopp 'Gl.,' Benf. ii. 195, Grimm 'Gesch.' 405, Schweizer 'Ztschr.' iii. 346 f., Leo Meyer viii. 274, Schleicher 'Ksl.' 105, 108, Nesselm.
494 'Altpr. Vocab.' 22, Grassmann 'Ztschr.' ix. 29, where also the Skt. *ǵhal-ā* is compared, which among other meanings has that of 'the sun's heat.'—In the face of the frequent representation of *r* by λ and the Hesychian forms *θαλ-υ-κρόν· λαμπρόν*, *θερ-μόν*, *θαλύψαι· θάλψαι*, *πυρῶσαι* it is hardly possible to regard *θάλ-π-ω* as anything but an expansion of the same root by *π* (cp. above p. 60; Pott ii². 468) to which Lithuanian gives us a remarkable analogy in *žer-p-lé-ti* by the side of *žer-ě-ti* 'glow,' 'gleam.'—On the OPers. form see Spiegel 'Altp. Keilschr.' 195.—*for-mu-s* and *formi-du-s* are given by Paul. 'Epit.' p. 83, who rightly connects with it *for-cep-s* 'tongs,' an older form of which, *formu-cap-es* (plur. = *forcipes*) at p. 91 has been restored by Scaliger. A further modification is to be seen in *forp-ex* which has a diminutive suffix added. If we consider Latin alone we shall be strongly inclined to consider *fer-v-o*, *fer-v-e-o* and all belonging to them as connected. But the *v* gives rise to difficulties, and since the special application of the verb seems to be to boiling

water, I regard as more probably correct the attempt made at No. 415 to connect it with πορ-φύρ-ω, φρέ-αρ, which is supported by the form *de-fru-ere* = *de-ferv-ere*, whence comes *de-frū-tu-m* 'must.' Otherwise Grassmann 'Ztschr.' xi. 88, Walter xii. 414. — On an Italian *f* for an old *gh* cp. *fos-ti-s* = *hosti-s*, Goth. *gast-s*, ChSl. *gostĭ*, Corssen i². 158. — We can hardly doubt an original connexion with the words discussed at No. 202, 200, 197, especially as we find in Skt. the word *ghrą-sá-s* with the meaning 'heat of the sun,' 'sunshine,' from a stem expanded by *n*. — Fick (i³. 81) gives a very different account of the words here collected. He traces them to no fewer than five different stems: (1) θέρ-ος, θερ-μό-ς, to the root contained in the AS. *der-ian* with the meaning 'hurt,' 'injure,' quoting in support Z 331, Λ 667 πυρὸς δηΐοιο θέρεσθαι. But θέρεσθαι, θερμός, θερμαίνειν often denote a 'mild warmth' (θερμὰ λοετρά), and it is very improbable that θέρος 'the ripening summer time,' properly meant 'hurting.' On the meaning of the rt. θερ cp. Heinr. Schmidt 'Synon.' ii. 301 ff. (2) *for-mu-s* he traces to the stem of *fervēre* discussed above; (3) the Goth. *var-m-s* to *var*, the root of the ChSl. *var-i-ti* 'boil.' This is phonetically possible, but this root is, according to Fick i³. 213, represented in Teutonic by the OHG. *wal-m* 'heat.' I leave others to decide whether there are analogies in Teutonic languages for the loss of a *g* before *v* which we must assume if we want to connect *ghar* and (*g*)*var*. (4) the Slavo-Lettish words, which the 'Pet. Dict.' also connects with our present root, he refers to the rt. *gvar*, to which belong the Skt. *ǵvará-s* 'glow,' *ǵvál-a-ti* 'he glows;' while (5) with the Skt. *ghar-má-s* he connects Hesychius' χλεμε-ρό-ς (χλεμερόν· χλιαρόν, θερμόν). Though it is extraordinary to find θ as the representative of *gh*, I cannot get over the fact that we find the stem *ghar-ma*, sometimes as a substantive, sometimes as an adjective in six families of languages in an absolutely similar use. — Perhaps we may also connect the OIr. *gorm* 'dark' ('red,' 'blue'), Cymr. *gwrm* 'dusky,' with the Skt. *gharmá-s*. Stokes 'Corm. Transl.' p. 85 adds also the Ir. *gronn*, *gorn* 'firebrand,' and further (after Siegfried 'Miscell. Celt.' p. 10), the OGall. Apollini *Granno*, cp. the Skt. *ghṛṇá-s*, *ghṛ́ṇi-s* 'heat,' 'sunshine;' the same root occurs probably in the OIr. *grían* gen. *gréne* 'sun.' The Ir. *sornd* 'oven' is *fornus* borrowed.

If we were right in comparing at p. 482 ἐλαφρό-ς with 495
ἐλαχύς (No. 168) we should have in the ἐλαθρός there mentioned an example of a dialectic θ = *gh*. The variation between χ and θ in the Dor. ὀρνῖ-χ by the side of the ordinary Greek ὀρνῖ-θ and the shorter ὀρνι (acc. ὄρνι-ν), No. 503, is as

yet unexplained. It seems, however, to me to be not improbable that the Dor. χ is connected with the χ of the Boeot. diminutives in -ιχο-ς and bears just the same relation to this fuller form that the -νθ of the stems ἑλμι-νθ, Τιρυ-νθ bears to formations like Κόρ-ι-νθο-ς, μίνυ-νθα (Pott 'Personennamen' 451), of which the latter (cp. μινυνθάδιο-ς) is especially applicable to the case in point. We may, I think, regard these suffixes as diminutive, and compare the χ with the often recurring diminutive κ, and the θ with the *t* that serves the same purpose in the related languages. Compare μικύ-θι-νο-ν· τὸ μικρὸν καὶ νήπιον Hesych. As an example of a Gk. diminutive formation in τ we have νη-πύ-τι-ο-ς (cp. p. 471) from νήπιο-ς, and much the same in τύτθο-ν which is most probably like τυννό-ς, τυνν-οῦτο-ς a diminutive from the demonstrative st. το. The Boeotians moreover aspirate an original τ in the personal terminations -νθι, -νθω, -νθο, -νθαι. — In modern Greek, as Baumeister 'Euboea' p. 57 shows, now and then θ takes the place of χ, e.g. in Λιθαδό-νησα = Λιχάδες, though we also find χ for θ, if ἦρχα from the Greek of Ceos is really identical with ἦλθον, and is not to be regarded as nearer to ἔρχομαι. — Bezzenberger's bold assumptions ('Beitr.' ii. 190 f.) as to the substitution of a θ for φ and χ I cannot adopt.

d.

All that can be adduced in support of the change of original labials to dentals is untrustworthy. — That τ is ever the representative of an original *p* has hardly been maintained at all. The only case that looks at all like it is that of the Greek for peacock ταῶ-ς or ταῶν (so according to Athen. ix. 397 e), compared with the Lat. *pavo* (st. *pavōn*). But after what Pott ii[1]. 443, Benf. ii. 236, the 'Thesaurus' of Stephanus and Vaníček 'Fremdwörter' p. 55 have told us about this word it seems impossible to doubt that the word is no native, and that there is nothing to show that the Lat. *p* is older than the Greek τ. — The Doric form ὀδελό-ς by the side of ὀβελό-ς in ordinary Greek has already come before us at p. 483, and we found no warrant for regarding the latter as the earlier form. — It is

less unusual to find φ and θ confronting each other from different dialects. The cases in which it appears that the dental aspirate is the older one have been discussed above. The converse of this relation occurs in ὄθρυ-ς, which has already been connected with ὀφρύ-ς under No. 405. We find the word given not only as the name of a mountain, but also as an appellative: Hesych. ὄθρυν· Κρῆτες τὸ ὄρος, to which 496
belongs the adj. ὀθρυόεν· τραχύ, ὑλῶδες, δασύ, κρημνῶδες. Since ὀφρύ-ς is often used for the 'brink of a precipice,' 'high ground,' and Ἴλιος ὀφρυόεσσα *X* 411 occurs in the sense of κρημνῶδες which is given as the equivalent of ὀθρυόεν, there can be no doubt as to the identity of the words. The Spartan Ὀθρυάδας very likely belongs here, with the meaning 'superciliosus,' forming a parallel to the comic ὀφρυανασπασίδης, perhaps too — though this is doubtful — the Homeric Ὀθρυονεύς (*N* 363 ff.). — θύλλα (κλάδους ἢ φύλλα ἢ ἑορτὴ Ἀφροδίτης Hesych.) is held by M. Schmidt, though doubtfully, to be the Cretan form of φύλλα[1], in which at No. 418 we recognized the labial initial as belonging to the original root. — The word θυλλί-ς (by-form θυλί-ς) 'bag,' also preserved by Hesych. along with θύλ-ακο-ς of similar meaning, I have ventured ('Ztschr.' ii. 399) to compare with the Lat. *folli-s* 'bag,' 'bladder.' If it is right to compare the Goth. *balg-s*, which agrees precisely in meaning, and is compared with *follis* by J. Grimm 'Gesch.' i. 398, we shall have to start with the initial *bh* and derive the dental Greek aspirate from the labial, especially as the latter is also supported by the OIr. *bolc* 'uter,' 'saccus' ('*bulgas* Galli sacculos scorteos appellant,' Festus; Z². 14, Diefenbach 'Wtb.' i. 270 f.). The υ of the Greek words seems to have arisen from α, for we find in Hesych. the by-form θαλλίς. The double *l* has most likely arisen from the assimilation of some suffix or other. On the other hand θύλακο-ς has been expanded by the addition of a suffix of some kind (cp. φάρμακο-ν, ὄστρακο-ν). Cp. Pott W. i. 264. — There is more doubt about Pott's conjecture (i¹. 27) of the identity of the θ in the stem κορυθ (κόρυ-ς 'helmet')

[1] A justification of his doubt is furnished by the OGall. πεμπέδουλα for πεντά-φυλλον in Dioscorides ('Gr. Celt.²' p. 371, cp. 37), Ir. *duillen* 'folium,' 'Ir. Gl.' 765, *dulebad* 'foliage,' 'Corm. Transl.' p. 58, Cymr. *deil* 'folia,' *dalen* 'folium' Z². 295.

with the φ in κορυφή 'summit,' for the latter word seems to belong to κάρα (No. 38), from which it comes with the addition of a derivative termination which may be compared with that of κόλ-αφο-ς, κρότ-αφο-ς, φλήν-αφο-ς, while the former can hardly be separated from κορυθό-ς [Hesych.] 'crested lark.' (Cp. Walter 'Ztschr.' xii. 388, Van. 126.)—From the attempt made by Benfey ii. 140 and Kirchhoff 'Ztschr.' i. 43 to compare ἐλεύθ-ερο-ς with the Lat. *lĭber* (st. *libero*), the latter adducing the Osc. *lúvf-reis* = *liberi* in favour of the *u*-sound, we are restrained by the form *loebesum* preserved by Paul. 'Epit.' p. 121, for there is no way of getting from its *s* to the Greek ρ. It is true that the form is very strange when we consider the corresponding *r* in Osc., and the derivative *libertas*, as O. Müller ad Fest. saw before us. But even if *loebesum* should be a mistake for *loeberum*, we have still difficulties enough
497 left. For the simplest explanation of the Italian word is found in referring it to the rt. *lub*, *lib*, which sprang from *lubh*, *libh* and has the form λιφ in Greek (No. 545). Cp. the Lith. *vál-na-s* 'free' by the side of *vély-ju* 'wish' (No. 659). With regard to ἐλεύθ-ερο-ς however the old derivation παρὰ τὸ ἐλεύθειν ὅπου ἐρᾷ ('E. M.' p. 329, 44) seems to have every possible warrant, especially since, as Schweizer 'Ztschr.' xii. 305 observes, it was also the mark of freedom in the Teuton that he could go wherever he liked, and since in the numerous Greek deeds of manumission the ἀποτρέχειν οἷς κα θέλῃ as it runs in the Delphic dialect, is always an essential token of freedom. Müllenhoff reminds us also of the MHG. *lëd-ec*, *lid-ic* from the Goth. *ga-leith-an* 'go,' 'draw.' The association of the Gk. and Lat. words which Corssen 'Beitr.' 201 advocates, but abandons again at i². 151, can only be brought about at the expense of abandoning one or the other of these likely etymologies. For if ἐλεύθερο-ς stood for ἐλεύφερο-ς we should here have an example of a dentalism which, we have seen, is not by any means common, and a departure from the rt. λιφ not only in the prothetic vowel but in the vowel of the stem. Moreover the primary meaning of 'at one's pleasure,' thus arrived at, would but ill agree with the Homeric usage, which knows only ἐλεύθερον ἦμαρ and κρητὴρ ἐλεύθερος (*Z* 528). The more general application of the word is clearly only post-

Homeric. The attempt to conjure *līber* out of the stem ἐλυθ would lead to still greater impossibilities. For since ἐλ-υ-θ, as we saw at p. 63, is formed by an amplificatory θ from the rt. *ar*, it has in fact nothing at all in common with *līber*, *loeber*, except the *l*; the loss of the root vowel in Latin would be very strange, and besides there is no trace of a similarly expanded stem on Italian soil. The Graeco-Italic primary form *leveθero* developed by Fick (ii³. 225) from the rt. *lu* (λύω) is far too artificial and without analogy. I still hold therefore that the two words are distinct. There is nothing surprising in the fact that an idea so entirely metaphysical should have been arrived at by closely related peoples along a different route. It certainly does not belong to the original stores of the Indo-Germanic language, any more than the words for slaves or slavery, of which none are primitive. — Comparetti 'Ztschr.' xviii. 140, and Mor. Schmidt 'Stud.' iii. 353 treat of a Tzakonian θ in the place of φ (θίλε = φίλε, οὔθε = ὄφι-ς).

θ.

There is one more phonetic affection that falls under the head of Dentalism, the apparent insertion of a dental mute after a labial or a guttural. This process is most clearly seen in the Homeric forms πτόλις and πτόλεμος by the side of πόλις and 498
πόλεμος. πτόλις has been lately shown to be Cyprian as well (Inscription of Idalion l. 1, 'Stud.' vii. 240). That the simple π is older than πτ is proved by the related words collected under No. 374 and 367. It is not allowable to regard the inserted τ as merely a phonetic 'support,' as it has been called. What need could π have of such a support, when it always shows the greatest readiness to stand next to a vowel? It was Kuhn ('Ztschr.' xi. 310) who first gave an explanation which is more satisfactory, with which cp. Grassmann xii. 95 and Ebel xiv. 39. His conjecture is that the source of the explosive sound is here again to be sought in an older *j*, attached to the π in pre-historic times, and then assimilated to it. He gets πτόλι-ς then from *πjόλι-ς. How a δ was developed before the *j* and then expelled its parent sound

altogether will have to be fully examined below. It is from this *δ* that we naturally arrive after a *π* at *τ*. This explanation is confirmed at all events by one case in which we have actual record of the intermediate *pj*, i. e. the Lith. *spiáuju* by the side of *πτύω*, discussed under No. 382, which led us to deduce a form *σπjυ-jω*. To these three examples a few others may be added. — *πτέρνα* 'heel' corresponds to the Goth. *faírzna* of like meaning, Skt. *pā́rshṇi-s*, ChSl. *plesna* 'planta pedis' (Fick i³. 673). — *πτίσσω*[1] (*πτισάνη*, *πτίσι-ς*, *πτισμό-ς*) 'pound,' 'bruise' claims connexion with the Lat. *pins-o*, *pins-io*, *pis-tor* of like meaning and the Skt. *pish* (*pinásh-mi*), ChSl. *pĭš-eno ἄλφιτον*, ON. *fis* 'chaff,' so that it looks as if the root was *pis*. The only obstacle is in *πίτ-υρο-ν* 'bran,' with its strange *τ*, which Pott W. ii. 2, 433, explains by supposing a metathesis from *πτι(σ)-υρο-ν*. If as I have maintained at length in the 'Gk. Verb' p. 241 f., *πιέζω* 'press' belongs to this root it must be an expansion of the unaltered rt. *πις* with the regular loss of the *σ* (**πισ-εζω*). — Whether *πτύ-ο-ν* 'winnowing fan' (Att. *πτέ-ο-ν*, probably for *πτεϝ-ο-ν*), belongs, as Pictet ii. 117 and Benfey conjecture, to the Skt. *pū* 'cleanse' (whence comes *pávana-m* 'sieve'), I cannot decide, especially as it would be possible to connect it with *πτύω*. — But the Cyprian *ἐπτόκασεν*, i. e. *ἐπύκασεν*, both interpreted by *ἐκάλυψεν* in the sense of 'implicavit' (Mor. Schmidt 'Ztschr.' ix. 367), can hardly be explained except by the supposition of this insertion. It seemed tolerably probable that the rt. πυκ with the meaning 'make firm' underlay the words collected under No. 384. Again *πτύσσειν* 'fold,' — and folding is a kind of making firm or secure, — is most probably related in spite of
499 its *χ* (*πτυχή*). Otherwise Fröhde in Bezzenb. 'Beitr.' i. 251.

It cannot be proved that *κτ* comes from *κ* in the same manner. It is true that *κτείνω* seems to bear to *καίνω* (No. 77 b) a relation similar to that of *πτόλις* to *πόλις*. But the form with a simple *κ* is so much later, and of such rare occurrence, that we cannot venture to regard it as the primary

[1] The present *πτίττω* to which weight is attached by Ascoli 'Krit. Stud.' 356, has no sufficient authority. Cp. Lobeck 'Paralip.' 31, Meineke 'Comici' ii. 345 f.

form. Neither can I adduce any proof of the growth of *γδ* from *γ*. On the other hand it is possible that the *δ* in *βδέω*, (No. 255) arose from *j*, since the analogies in the related languages lead us to a rt. *bjas*=*βδες*.

But this kind of dentalism appears quite plainly in the combination *χθ*. *χθές* (No. 193) we compared to the Skt. *hjas*, giving *ghjas* as the primary form. In this case then the *j* has evidently developed a dental sound, which, by the influence of the preceding aspirate, was assimilated to it. Compare with this the view of Ascoli 'Krit. Stud.' p. 323. But the same *j*, for which we have historical evidence in this word, may be inferred with certainty in the st. *ghamā*, which we recognized under No. 183 to be the primary form of the Gk. *χαμα*. If we assume with Grassmann 'Ztschr.' xii. 95, that here too a parasitic *j* associated itself with the *gh*, we arrive at *ghjam*, *ghjamā* and thence at *χθον*, *χθαμαλό-ς* in the very same way in which we got from *ghjas* to *χθές*, perhaps also at the Skt. *ksham*, the *j* having become a sibilant and the sibilant having made the soft sound before it hard. It is true that this last developement still needs closer scrutiny as a point of specially Sanskrit phonology.

In connexion with these, as I think, well established explanations, Kuhn (*ut supra*) ventures a conjecture which can hardly prove true. His opinion is that the cases of dentalism discussed above under (a) admit of this same explanation, that is, that *τι-ς* presupposes a stage *kti-s* between itself and *ki-s*. But such a form as *kti-s* is not to be found in any instance, nor is there a single Greek word in which *κτ* degenerated into *τ*. The word *τύπο-ς* quoted by Kuhn has certainly nothing to do with *κτύπο-ς*; it appeared probable rather (No. 249) that the root of the former was *stup*. On the other hand the shifting of a guttural to a palatal and then on to a dental is much simpler and has plenty of analogies to support it. There would thus be no need of a *τ* developed by the side of the *κ*, in order to shift it into the class of the dentals. — Still less trust can be placed in the combinations of Ebel, who actually conjectures *pt* as a stage between *k* and *t*, that is, assumes *πτις*, and *πτε*. In this he is clearly wrong, for the only opportunity 500
for *k* to develope into *p* was when a *v* introduced itself after the

k. We shall have to hold fast to the belief that *k* became on one side *kv* and then *p*, on the other *kj* and then *τ*.

3. Aspiration.

As we have seen that a great part of the phenomena of labialism and dentalism may be explained simply by assuming that a spirant was naturally appended to the explosive, we cannot be surprised to find that a still less articulate spirant, the simple spiritus asper, is attached in the same way, and that thus the original tenuis is changed into the corresponding aspirate. Indeed the change from the tenuis to the aspirate is one of the most common assumptions of etymologists. And this assumption certainly has in its favour the fact that we can prove the tendency to aspiration in the most various languages and periods of speech. Thus the Sanskrit hard aspirate has unmistakeably, at any rate in many cases, come from the tenuis (Grassmann 'Ztschr.' xii. 101). So too a part of the Teutonic shifting of the mutes, the change from *k* into *h*, from *t* into *th*, from *p* into *f*, rests upon aspiration, and this is partially repeated afterwards, at a later stage of the language. In Umbrian it is a recognized fact with certain combinations of sound (Aufr. u. Kirchh. i. 78); in the Persian languages this is especially the case before continuous sounds (Bopp 'Vgl. Gr.' i². 69); in Ossetic (ib. 120) it is found widely prevalent, without any influence of the kind; in Old Irish it is most common between vowels (Schleicher 'Comp.³' 279). We are therefore already predisposed to assume the existence of this same phenomenon in Greek; and at any rate this has more analogies in its favour than the loss of the aspiration. But it is precisely assumptions which seem so unexceptionable which require especial caution. The Greek aspirates have, at least in the great majority of instances, come from soft aspirates, and hence in their origin they are far removed from the tenues; so that we must be very careful not to confuse these two groups of sounds with each other. The aspiration of a tenuis is generally to be regarded as an affection which makes its appearance on Greek soil at a comparatively late date, and which at least in many instances is brought about by the influence of neighbouring sounds: though,

starting from this point, and in part limited to certain dialects 501
and stages of the language, it does extend itself further, and in some few instances coincides with Sanskrit aspiration. The whole phenomenon has already been discussed by me in a comprehensive survey in 'Tempora und Modi' p. 196 f. Cp. Leo Meyer i. 51 and W. H. Roscher 'De aspiratione vulgari,' 'Studien' i. 2. 63 ff. This subject has been very carefully treated by Wilhelm von der Mühll in his doctoral dissertation 'Ueber die Aspiration der Tenues vor Nasalen und Liquidis im Zend und Griechischen' Leipz. 1875. I borrow from this discussion various details, without entering upon the physiological explanation, which in this paper has often been attempted, as it seems to me, with success.

It is best to start with those changes of sound which are specifically Greek. These as a rule lie outside the limits of our task, but here they cannot be passed over without disadvantage. Christ in his 'Lautlehre' p. 104 f. has collected only a small part of the facts which belong here; and even these are mixed up with much that is dubious. The aspirate is developed from the corresponding tenuis under two main conditions, i. e. first by the influence of a following liquid or nasal, and secondly by the influence of a preceding sibilant.

The operation of the first influence is the more familiar. Thus the stem *βλακ* (=*μαλ-ακ* No. 457) appears aspirated in *βληχ-ρό-ς*, *ἀ-βληχ-ρό-ς*, the stem *λεκ* (cp. *λικριφίς*, where the *φ* prevents the aspiration) in *λέχ-ρ-ιο-ς* (No. 540), the stem *τρι* (No. 246) in *θρίναξ* 'trident' by the side of *τρίναξ*: the suffix *-τρο* (*ἄρο-τρο-ν*=*ara-tru-m*) sometimes becomes *-θρο* (*κλεῖ-θρο-ν*=*claus-tru-m*, 'De nom. form.' p. 38), *πεν-ι-χρό-ς* may be compared in its suffix with *lud-i-cru-s* (Leo Meyer 'Vgl. Gr.' ii. 506). — By the side of *τρόνα· ἀγάλματα ἢ ῥάμματα ἄνθινα* (Hes. see above at No. 239) we find the Homeric *θρόνα* X 441, *ἐν δὲ θρόνα ποικίλ' ἔπασσεν*; (Hesych. *ἄνθη καὶ τὰ ἐκ χρωμάτων ποικίλματα*). The same word occurs also in Alexandrian writers in the sense of *φάρμακα* 'herbs,' and may certainly be compared with Skt, *tṛ́ṇa-s* 'grass,' 'herb,' 'stalk,' Goth. *thaurnu-s*, ChSl. *trŭnŭ* 'thorn.' Cp. Wustmann 'Rhein. Mus.' xxiii. 238, where *ποικιλό-θρονο-ς* as an epithet of Aphrodite is well derived from this stem. — *θρυγονᾶν* is

identical with τρυγονᾶν 'to knock gently at the door;' the preposition πρό, like the Persian *fra*, has aspirated its labial in the post-Homeric forms φροῦδο-ς (No. 281, cp. πρὸ ὁδοῦ ἐγένοντο Δ 382), φροίμιο-ν sporadically from the time of Aeschylus beside προ-οίμιο-ν, φρουρό-ς, φρουρά (No. 501) have all aspirated their labial. — Also in τέφ-ρο-ς 'ashen grey,' τέφ-ρα 'ashes' the aspirate is explained from the influence of the ρ,
502 for we cannot doubt that these words are akin to Skt. *tap* 'to be warm,' 'to warm,' *táp-as* 'heat,' Lat. *tep-eo*, *tep-idu-s*, AS. *thef-jan*, 'aestuare,' OHG. *damf* 'smoke,' 'vapour,' ChSl. *top-lŭ* 'warm.' The same root experiences the same affection in the OPers. *taf-e-dhra* 'a melting,' *taf-nu* 'heat.' — Before λ we find κ aspirated in ἀνδράχ-λη from the st. ἀνθρακ (ἄνθραξ 'coal'), τ in ναῦ-σθλο-ν (No. 430), ναυ-σθλό-ω, which must certainly be referred to ναυ-στολο-ν, and in the suffix -θλο (θέμε-θλο-ν), which we cannot separate from -θρο, -τρο (cp. θύρε-τρο-ν), π in σιφλό-ς, 'misshapen,' 'weak,' if we are right in identifying it with σιπαλό-ς quoted by the grammarians with similar meanings (Lobeck 'Prolegg.' 140, 'El.' i. 225). Fick i³. 474 attractively compares ἀχ-λύ-ς 'darkness,' 'mist,' with ἄκαρο-ν· τυφλόν Hesych. and Lat. *aquilu-s* 'dusky' ('color subfuscus' Paul. 'Epit.' 22), to which are added *aquila* and *Aquilo*. Whether ἄγχρας· μύωψ Λοκροί belongs here seems to me doubtful, for it might easily be connected with ἀγχοῦ. — Aspiration before ν meets us in ἀράχ-νη from rt. ἀρκ (No. 489), λύχ-νο-ς from rt. λυκ (No. 88) in the diminutives in -ιχνη, -ιχνιο-ν, -υχνιο-ν, which go back to the shorter κ (κύλιξ κυλίχνη, πελίκη πελίχνη, πόλις πολίχνιο-ν, cp. Schwabe 'De deminutivis' pp. 63, 73), in πέταχνο-ν, with the older form πέτακνον still preserved, explained in Hesych. by ποτήριον ἐκπέταλον, in μυσαχνό-ς, μόλυχνο-ς (Hesych.) for which we may conjecture similar suffixes, in ἴχνος, if we were right in referring this to the rt. ϝικ (No. 17), in τέχ-νη, the root of which (No. 235) offers however other aspirated forms, in πάθνη (Roscher 'Stud.' i. 2, 102), the true Attic form of which is φάτ-νη 'crib,' with transposed aspiration, but which we must still refer to πατ-έο-μαι (No. 350), in ἄφνω, ἐξ-αίφνης by the side of ἐξαπίνης with epenthesis of an iota (p. 668). ἄχ-νη 'chaff,' 'foam' is connected by Fick i³. 475 with the Goth. *ahana* (f.) 'chaff.' Whether we should take ἀκ 'pierce'

(No. 2) as the root, and add *ἄκ-ανο-ς* 'goad' with other words, is less certain to me. — *χνοῦς* 'dust,' 'foam,' which Lobeck 'Rhemat.' 29 and Pott W. i. 673 connect with *κνάω*, *κόνι-ς* (cf. *cini-s*) is doubtful. For the ON. *gnu-a* 'scrape,' 'rub away' points to a rt. *ghnu* (Fick i³. 585), to which *χνυ* regularly corresponds. And for *κόνι-ς* (*ut supra* 518) the Skt. *káṇa-s* 'corn,' 'meal' is important. — Before *μ* the *κ* of the rt. πλεκ (No. 103) is aspirated in *πλοχ-μό-ς*, the original *κ* of the root of *πράσσω* (No. 358) in *πρῆχ-μα* in an inscription from Chios (Cauer 'Delectus' No. 133), the *κ* of the rt. ἀκ (No. 2) in *ἀκ-αχ-μένο-ς* and in *αἰχ-μή*; the latter word however is probably for *ἀκ-ιμη*, and, like *τέφρα* quoted above, is to be taken as an adjective which has become a substantive. *ἰωχ-μό-ς* 'din of battle' is equivalent to *ἰωκή*; *λαχ-μό-ς* is given from Antimachus in the 'E. M.' in the meaning *λακτισμός*, and hence 503
belongs to No. 534.

The 'aspirating influence' of a preceding *s* on a following tenuis has been investigated comprehensively by Kuhn in vols. iii. and iv. of his 'Zeitschrift,' in a series of papers, which we have repeatedly used already. (Cp. Grassmann 'Ztschr.' xii. 96. An admirable attempt to explain this phenomenon physiologically is made by Ascoli 'Fonol.' 194, 'Lautl.' 164.) Within the limits of Greek the following words are certain examples of such an affection, which becomes general partly only in the Attic period, partly in still later stages of the language, and which is proved by the occurrence of unaspirated by-forms: *σχάζω*[1], *σχέδ-ος*, *σχεδ-ία*, *σχενδύλη* with rt. σκεδ No. 294, *σχίζω* with rt. σκιδ No. 295, *σχελίς* 'leg,' Attic by the side of *σκελίς* and *σκέλος*, *σχέραφο-ς* 'insult,' with *σκέραφο-ς*, *ἀσφάλαξ* quoted in the 'E. M.' as a by-form of *ἀσπάλαξ* (No. 106), *ἀσφάραγο-ς* 'asparagus' by the side of *ἀσπάραγο-ς* = Zd. *çparegha* 'prong' (ModPers. *a-sparag* Justi 302), Lith. *spurga-s* (Nesselm.) 'shoot,' 'eye' ('bud') of a tree (Fick i³. 833),

[1] To *σχάζω* we added also the intrans. *χάζω* 'separate myself,' 'retire.' Cp. *συγχάσαι· συγχωρῆσαι* Hesych. Along with this go the Homeric aor. *κεκάδ-ο-ντο* = *ἐχάσαντο* which has preserved the tenuis, and the pluperf. *ἐ-κεκήδ-ει· ὑπεκεχωρήκει* (Hesych.) which is probably wrongly challenged by Mor. Schmidt, together with the Lat. *cē-do* (cp. Buttm. 'A. Gr.' ii². 322).

a word possibly borrowed from the Persian, λίσφο-ς (No. 544) with λίσπο-ς, where π, if we explained it rightly on p. 367, can only claim relative priority, as is true also of the late σφόγγο-ς and the Attic σπόγγο-ς (No. 575), but Attic σφυρά-ς 'dung' with Ion. σπυρά-ς and σπύραθο-ς, σφυρί-ς 'basket' in Hippocrates and in a late inscription (Steph. 'Thes.') with σπυρί-ς (cp. Lat. *spor-ta*, σπεῖρα, σπάρτα, Lith. *spar-ta-s* 'band' Fick i³. 832), σφονδύλη the name of an insect in Aristotle with the variant σπονδύλη. So too σφόνδυλος 'turning,' 'joint,' with the variant σπόνδυλος (cp. Bonitz 'Ind. Aristotelicus'). — At an earlier period this same phenomenon made its appearance in the rt. σφαδ (No. 296), with which we compared Skt. *spand*, in σφήξ (No. 580), if we were right in regarding the σφ of this word as equivalent to the *sp* of *vespa*, perhaps in σφήν 'wedge,' if Kuhn 'Ztschr.' iv. 15 isright in connecting this with the German *Spahn* 'chip,' 'splinter' (Pott W. i. 635). The same is probably the case with σθέν-ω 'am strong' and σθένος 'strength' with its derivatives (σθεν-αρό-ς, σθέν-ιο-ς, Σθέν-ελο-ς). For as we see that from the rt. στα (Nos. 216, 228) various forms (cp. also No. 222) are derived with the meaning of firmness, we may probably assume for these too the same
504 notion of 'standing' as their basis, and thus we gain for σθέν-ος the fundamental notion of 'stable strength,' as distinguished from ῥώμη (No. 517) 'strength of impetus.' According to this view Greek coincides in the case of this root with Sanskrit, which shows throughout the aspirated from *sthā*. — The θ of θάμβ-ος beside τάφο-ς we explained under No. 233 from the influence of the σ subsequently lost (rt. *stabh*, Gk. θαφ). The aspiration also corresponds in the two languages in the case of the rt. *sphal*=Gk.σφαλ (No. 558); and also in σφαδ mentioned already. On the other hand in other roots and words, especially in the rt. *sthag* = στεϝ (No. 155), in *asthí* = ὀστέον (No. 213), in *sphar* =σπαρ (No. 389) the Indian aspirate is isolated. — We must find in a sibilant once present, but afterwards lost, the source of the aspiration of φᾶνο-ς by the side of the older πᾶνο-ς 'torch,' if the combinations of Roscher 'Stud.' i. 2, 72 ff. are correct. He follows Kuhn in connecting these words with σφήν and with the German *Spahn*.

Besides these two main influences on the aspiration of a

tenuis we may conjecturally ascribe also to a *preceding* nasal a tendency in some cases to change the tenuis into the aspirate. The attempt to explain this process from the physiology of speech has been made by von der Mühll on p. 47 of the work mentioned above on p. 501. Here belong ἔγχ-ος, where derivation from the rt. ἀκ and affinity with ἄκ-ων (No. 2) is the more probable, that in other instances also groups of consonants containing a nasal change α into ε, πένθος, βένθος, φέγγος; κόγχη (No. 65), the Skt. correlate of which, *çaṅkhá-s*, shows the hard aspirate, which we assume to be almost always of later origin; λαγχάνω, if we follow Fick i³. 748 and Van. 827 in comparing the ChSl. *po-ląč-iti* (by-form *po-lučiti*) Lith. *per-lenki-s* 'duty' OPruss. *per-lânk-ai* 'it is due.' The aspiration must in that case have been transferred from the forms with a nasal to λαχεῖν, etc. ῥέγχ-ω by the side of ῥέγκ-ω 'snore' and ῥύγχ-ος, a word which, according to Athenaeus iii. 95, means κυρίως 'the swine's snout,' belonging either to ῥέγκειν or as Fröhde 'Ztschr.' xxii. 267 assumes, to ὀρύσσειν, σπινθήρ 'spark,' which is seen to be aspirated by a comparison with its diminutive *scintilla* (otherwise Fick i³. 834), ταν-θαρ-ίζειν 'tremble,' 'dangle,' by the side of ταρ-ταρ-ίζειν 'tremble with cold,' 'chatter,' certainly from the rt. τερ, the manifold expansions of which are discussed under rt. τρεc No. 244, ὀμφ-ή 'voice,' if it belongs to the rt. ϝεπ (for ϝεκ) No. 620, though certainly the word in Homer does not admit the ϝ. Fick compares ὀμφή with the Lith. *ambiti* 'scold' (i³. 493), which is by no means self- 505
evident. To these we may further add the Boeotian termination of the 3 plur. in -νθι for -ντι (mentioned above p. 495), and the diminutive forms in νθ there compared.—To these belongs also κολοκύνθη 'pumpkin,' while κολοκύντη was regarded as the better, the genuinely Attic form ('Phrynichus' ed. Lobeck p. 437). We can also recognize the aspirating influence of the nasal in other isolated dialectic forms: σκάνθαν· κράββατον, which Salmasius compared with ἀσκάντην, of equivalent meaning, Βερέκυνθος, a Cretan mountain, by the side of Βερέκυντος in Phrygia.

A different explanation of the aspirate which appears by the side of a tenuis has been sought in a digamma following, and especially the combination πϝ is supposed to have passed

into *φ*. More than any one Benfey 'Ztschr.' vii. 52 gives this explanation with great positiveness, and it is approved by Leo Meyer i. 51. The former refers *βλέφ-αρο-ν* to *βλεπ-ϝαρο-ν*, *σοφ-ό-ς* (No. 628) to *σοπ-ϝο-ς*. But the assumed form with a *v* does not, either in this case or in any other of the instances discussed by him, actually occur in any of the kindred languages. There is certainly in Sanskrit a suffix *-vara*, which is used occasionally for primary nominal formation (Lindner p. 109), and more numerous analogies may also be quoted (ib. 105) for the suffix *-ϝο*, e. g. *ūrdh-vá-s* 'straight,' *tak-vá-s* 'quick' (cp. *caed-uu-s*, *cur-vu-s* Corssen i². 313). But we cannot speak of any special agreement. It is only where phonetic traces are to be found that this explanation becomes more probable, as in *ὄφι-ς* (No. 627), which in Homer and Hipponax is scanned as a trochee, and hence must have been pronounced almost as *ὀπφι-ς*. *-vi* is in Sanskrit a suffix which forms adjectives from verbal stems, occurring e. g. in *ǵāgṛ-vi-s* 'watchful' (Lindner p. 109). Thus we can suppose a form **ak-vi-s* 'seeing,' from which *ὀκ-ϝι-ς*, *ὀπ-ϝι-ς* came. — I have already combated (in 'Tempora und Modi' p. 194 ff.) the view that the Greek aspirated perfect goes back to a formation corresponding to the Latin form in *-vi* and that so *πέπλεχ-α* is for *πε-πλεκ-ϝα*. I may now refer to the 'Gk. Verb' p. 403 ff. The isolated form *ἐδήδοϝα* in the strange inscription 'C. I. N.' 15 cannot possibly determine the question. In this instance *ϝ* is probably only the sign of the transition-sound, naturally developed between the *ο*, (which is to be compared with the *ε* of *ἡδ-έ-σθη-ν*, *ἐδ-ήδ-ε-σμαι*, and which recurs in the Homeric *ἐδ-ήδ-ο-ται*,) and the following vowel, springing as it were from the former, like the *v* of the Skt. *ba-bhū́-v-a*. This is how in Italian the name *Joannes* became *Gio-v-anni*. Cp. below p. 586. This post-
506 Homeric phenomenon, which is parallel to the Homeric aspiration before the middle termination *-ατai*, is evidently a purely Greek phonetic affection (cp. 'Gk. Verb' p. 418).

We shall probably be compelled to recognize a like aspiration, which cannot be explained from special conditions, in other cases besides, where it is partly of older date than in the instances hitherto discussed. In my paper on the aspirates ('Ztschr.' ii. 336) I called attention to the fact that the

Greek aspirate sometimes corresponds to the hard aspirate of Sanskrit; and I distinguished two cases, the one in which the aspirate in Sanskrit as well as in Greek is of later origin (*hysterogen*), i.e. originating in the tenuis, the other when on the contrary the aspirate is original in both, but in both is raised from the stage of the soft sound to that of the hard. We discussed these relations on pp. 82 and 422. Of course the other kindred languages, or any by-forms that may exist in the same language must decide what is the character of the sound in the particular instance. The hard aspirate of Greek and Sanskrit in the st. *ὀνυχ* and *nakha* (No. 447) was of the second kind. Under No. 412 we regarded the *ph* of the rt. *phull* in the same way. We should have also to add to these the agreement of the form *χά-ος* (i.e. *χαϝ-ος*), discussed under No. 179, with the Skt. *kha-m* 'cavity,' 'atmosphere,' an instance which Bopp 'Gl.,' and Aufrecht 'Ztschr.' ii. 148 have pointed out, and which has also been recognized by Benfey in his complete discussion of these words and of others connected with them 'Ztschr.' viii. 187 ff. The kindred languages offer no forms but such as point back to an original *gh*. Hence Skt. *kha-m* is also hardened for *gha-m*. — The Skt. *kh* is undoubtedly of the former kind in some of the words just discussed, in which, like the Greek *χ*, it arose from *k* through the influence of a sibilant; e.g. in the rt. *skhad* (No. 294); and the same is the case with Skt. *th* and *ph*, which appear under the like conditions, e.g. in rt. *sthā* by the side of *σθένος*, *sphal* by the side of *σφάλλω* (No. 558).— Elsewhere indeed we may have some doubts. It was not however without reason, that we just above placed *κόγχη*, *κόγχο-ς* = Skt. *çaṅkhá-s* (No. 65) among the examples of aspiration originating in later times. — The word *χαλῑνό-ς* discussed under No. 561, and compared with the Skt. *khalīna-s*, was left doubtful. — We found instances on p. 278 of *θ*, corresponding to a Sanskrit *th*, but proved by other kindred forms to be a metamorphosed *t*, in the words *πλάθ-ανο-ν*, *πλαθ-άνη* and Skt. *prath*, *pṛthú-s* (No. 367 b) by the side of *πλατύ-ς*, *πλάτ-ανο-ς* Lith. *platù-s*, and also in *μόθ-ο-ς* 'turmoil' (No. 476), Skt. *manth-á-s*, ChSl. *męt-ą*.

On the other hand the aspirate, most commonly the labial,

507 is also found confined to Greek. Thus in the case of the rt. δεκ (No. 11) we saw above that the unaspirated form, which occurs among the Ionians, Dorians, and Aeolians (Ahrens 'Dor.' 82), is the original, the Attic δεχ a form of later origin. Even the Attic writers preserved the older κ in some words, the connexion of which with δέχεσθαι can hardly have been clearly present to the consciousness of those who used them, in δοκ-ό-ς 'beam,' δοκ-άνη 'fork,' but also in δωροδόκος, πανδόκος with its derivatives, perhaps also in δεκών· ὁ δεκαζόμενος and δεκάζειν 'bribe,' which is probably best explained as a frequentative of δέχεσθαι in the sense of 'to welcome to one's house,' 'to entertain,' 'to treat' (cp. ἀκουάζεσθαι, μιγάζεσθαι); the derivation from δέκα (to undertake to distribute by tens), ascribed in the 'E. M.' 254, 29 to Eratosthenes, sounds extremely wild. — The rt. τυκ preserved this, its original, form especially in the Ionic dialect (τε-τύκ-ο-ντο, Τεῦκ-ρο-ς), as we saw on No. 235. But here too the Attic writers were not without forms with the unaspirated sound: τύκ-ο-ς, by the side of τυγχάνω, τεύχω. Who will find any particular explanation of the aspirate here? These are just the forms on which the view is especially based that the aspirated perfect arose from the unaspirated merely by phonetic affection. Perhaps the perfect-like present οἴχ-ο-μαι, characterized by the diphthong of the perfect, belongs here, a form which Sonne 'Epilegomena' p. 62 has already compared with the Goth. perfect *vaik* 'cessi,' without wishing to identify the two words. Although we cannot prove a ϝ here, we may probably connect the verb with the rt. ϝικ (No. 17), and the meaning 'I have given way,' 'disappeared' suits completely. The labial spirant might vanish before *o* sooner than before other vowels, as Christ p. 261 conjectures. — To these cases of aspiration belongs also the word ταχ-ύς, Skt. *táku-s*. In the 'Pet. Dict.' the Skt. adjective is explained by 'hurrying.' The root is *tak* (No. 231) 'shoot,' 'tumble,' whence *ták-van* 'bird,' and it is completely established in its high antiquity by Lith. *tek-ù* 'flow,' 'run,' *ték-ina-s* 'running fast,' ChSl. *tek-ŭ* δρόμος, *tok-ŭ* ῥεῦμα (Bohem. *roz-tok* 'issue,' 'mouth') OIr. *techim* 'fugio.' In Zend this root is very richly represented; *tak-a* 'running,' *takh-ma*, also with aspiration, 'quick,' 'strong,' *tac*

'run,' 'flow,' *tañc-ista* (cp. *τάχ-στο-ς*) 'very strong.' Grassmann 'Ztschr.' xii. 104 justly calls attention to the fact, that the transposition of the aspiration to the beginning of the word, which we perceive in *θάσσων*, when contrasted with *τεύξομαι*, points to a high age for the internal aspiration. — We conjectured on p. 498 that *πτύσσω* belongs to the rt. πυκ, and that hence *πτυχή* similarly only became aspirated at a later date. — The Siceliot *κάρχαι* = *καρκίνοι* was men- 508
tioned under No. 40. — Here belongs also *ῥαχία* (Ion. *ῥηχίη*) 'breakers' from the rt. *ϝρακ*, as will be seen on p. 542. The initial χ of *χόρ-ιο-ν* 'skin,' 'afterbirth,' corresponds to the *c* of the Latin *coriu-m*, with which Kuhn 'Ztschr.' iv. 14 justly compares it, arguing also from the Lith. *skur-à* 'skin,' 'leather' — cp. *scor-tu-m* — to an initial sibilant, which would help to explain the aspiration. Cp. No. 53, and Fick ii³. 272.

There is an example of a *θ* which has arisen from *τ* in *κλώθω*, the connexion of which with Skt. rt. *krat* 'spin' (*kṛ-ná-t-mi*) seemed to us probable under No. 42 a. As the formation of the Indic present points to a nasal, we may perhaps with Joh. Schmidt assume that *κλώθω* was developed directly from **κλονθω*, and that the aspiration was based upon the influence of a nasal, subsequently disappearing, as discussed above on p. 504.

Much more commonly does *φ* appear as against a primary *p*. It will be expedient here to distinguish cases where it is initial from those where it occurs in the middle of a word. — The derivation of *φι-άλη* from the rt. πι (No. 371), given even by ancient authorities ('E. M.'), has been frequently repeated in modern days, especially by Legerlotz 'Ztschr.' vii. 308, who is followed by Christ p. 186. Both refer *φιάλη* to *πιϝαλη*, and take it as a proof of the theory, often repeated but utterly incapable of proof, that a digamma suppressed in one syllable, produces aspiration in the syllable antecedent. But the etymology asserted for *φιάλη* breaks down owing to the fact that the word always means in Homer, not a drinking-vessel, but a kind of kettle, which is placed upon the fire — hence *ἀπύρωτος* of one not yet used Ψ 270 — and is also used as a jar for ashes (ib. 243, 253). Aristarchus

taught this, for he added his διπλῆ to the verse first quoted for this reason, ὅτι φιάλην οὐ τὸ παρ' ἡμῖν (the Greeks of later times) ποτήριον, ἀλλὰ γένος τι λέβητος ἐκπέταλον ('Aristonicus' ed. Friedländer p. 330); compare also Döderlein 'Gloss.' 936, who refers to the agricultural expression φιαλοῦν βόθρον, to 'kettle out,' as it were, i.e. to hollow out, a ditch in a round shape. In Xenophanes Fr. 1, 3 (Bergk) φιάλη means a vessel for ointment. It is in Pindar first that we meet with οἰνοδόκος φιάλα (e.g. Isthm. 6. 40). Max Müller 'Essays' iv. tries to support the derivation from rt. *pi* by showing that Skt. *pātra-m* beside the etymological meaning of *poculu-m*, has also the wider meaning of 'vessel,' 'utensil.' But the strange thing about φιάλη is that this presumed primary meaning is completely foreign to the earliest language. — The comparison of φιαρό-ς with Skt. *pīvará-s* 'fat,' is in no better case. Greek shows no inclination whatever to the aspiration of the π, as is shown by the forms πιαρό-ς, πῖαρ,
509 πίων, collected under No. 363. Besides, the meaning of φιαρό-ς, which in the Alexandrian poets, the only writers who know the word, is an epithet of the dawn, and means always only 'shining,' 'gleaming,' has absolutely nothing to do with πιαρό-ς, which never means anything but 'fat,' 'greasy.' In Theocr. xi. 21 the reading φιαρωτέρα ὄμφακος ὠμῆς, quoted by M. Müller, is by no means certain. — Pott's connexion (i[1]. 269, W. i. 1205) of φλύ-ω, φλεύ-ω in the compound περιφλύων, περιφλεύειν 'singe,' with Skt. *plush* and *prush* 'burn,' is exposed to objections of various kinds. The Skt. rt. *pru-sh* must be certainly regarded as an expansion of the shorter stems discussed under No. 378 and 385, while on No. 415 we inferred a Greek rt. φρυ, connected with Goth. *brinnan*. Lobeck 'Rhem.' 24 is inclined on the contrary to connect φλύ-ω, when referring to 'fire,' with the forms discussed under No. 412, as in fact the ideas of 'flaming fire' and of 'gushing exuberant fulness' often pass into each other in language. — On the other hand initial aspiration is well established in:

652. φῦ-σα blast, bellows, bladder, φυσά-ω blow, φυσιά-ω snort, pant, φυσαλί-ς, φυσαλλί-ς bladder, bubble, φύσκα bladder, blister, weal, φύσκη intestine, sausage, φύσκ-ων pot-belly.

Skt. *pupphu-sa-s* lung, *pupphu-la-s* blowing, *phu-t* blow.

Lat. *pūs-ula, pus-tula* blister.

Lith. *púš-ti* blow, puff, *pus-lė* bladder.

Pott W. ii. 2, 445, Benf. i. 551 ff. — In spite of Pott's protest I start from a rt. *spu*, the *s* of which produced aspiration in Skt. and Greek, and then fell off. This rt. *spu*, Gk. *φυ*, from which *φυ-σί-γναθο-ς*, 'with puffed cheeks,' is immediately formed, takes an expanding *s*, which meets us also in the Latin forms. *φῦ-σα* must have come from **φυσ-ja*, **φυσσα* (cp. *κνῖσα* beside *κνίσσα*). Cp. Misteli 'Ztschr.' xix. 121. The developement of meaning is simple, and almost identical with that of the German *blasen* and its belongings. As 'bladder,' 'blister' (*Blase*), and 'puff up,' 'swell' (*blähen*) are connected with 'blow' (*blasen*) in so many languages, I regard the explanation of Lat. *pūsula, pustula* here given, as more probable than that from the rt. *pu* (No. 383) maintained by Corssen 'Beitr.' 460. — Very differently Pictet ii. 143, who, having in view the Skt. *bhástrā* 'bellows,' starts from a rt. *bhas*. But the *u* is too firmly attached to all the forms here quoted, and a long *u* especially is too rarely developed from an *a* in Greek, to make this explanation probable. — *ποιφύσσω* 'blow,' 'pant,' as is shown by *ποί-φυγ-μα* (Aesch.) and other forms, rests upon a root expanded by a guttural, which Pott W. i. 1123 compares with ON. *fiuka* 'vento ferri.' — The original rt. *spu* returns with metathesis in the words *ψύχω*, *ψυχή* to be mentioned on p. 702.

A $\phi = \pi$ appears in the middle of a word in: 510

653. *ἄφ-ενος, ἄφ-νος* riches, *ἀφνε-ιό-ς* rich, *ἀφν-ύ-ω, ἀφν-ύν-ω* (Hesych.) enrich.

Skt. *áp-nas* revenue, possession, *ápnas-vān* profitable, *apnaḥ-sthá-s* possessor.

Lat. *op-s, op-es, opu-lentu-s, in-ops, cōp-ia* (=*co-op-ia*).

The *ε* of *ἄφενος*, as Buttmann 'Lexil.' i. 46 f. already conjectured, is no original element of the stem, for which the verb, explained in Hesych. by *ὀλβίζω*, is of especial importance (cp. *τέμ-ε-νος*). We may consequently here ascribe to the *ν* the power of aspiration, as in the instances quoted on p. 502. The Lithuanian *ápsta-s* 'crowd,' *apstù-s* 'richly' offer themselves unsought. — To the derived words belongs further *εὐ-ηφενέ-ων* (Hesych. *εὐπλουτούντων*) which Aristoph. Byz. and Rhianus read in Ψ 81 for *εὐ-η-γενέ-ων*, not without reason (Nauck 'Aristoph. Byz.' p. 50), and which I. Bekker has received into his text. The proper name *Εὐηφένης* is found in a Thasian inscription published by J. Miller ('Revue Archéol.' 1865 p. 141). The suffix of *ἄφενος* is discussed by Aufrecht 'Ztschr.' ii. 147 f., who follows

Schweizer however (Höfer's 'Ztschr.' ii. 108), in supposing *abh* to be the root. But the Skt. *ábh-va-s*, from which this root is deduced, is according to the 'Pet. Dict.' a compound of *a(n)* and rt. *bhū* 'be,' with the meaning 'monstrous,' 'dismal,' in the neuter, 'monstrous size,' 'might,' which is far removed from our words. And the Gothic words *ab-r-s* ἰσχυρός, *abra-ba* σφόδρα with all their kin contain only the notion of strength which reminds us of ὄφελ-ος, ὀφέλλω [Joh. Schmidt 'Ztschr.' xxii. 327]; so that we cannot, I think, allow the connexion of the words here quoted to be annulled because of them. — On the other hand there are still some Greek words with nasalization and an *o* belonging here (Pictet ii. 398), though for the most part occurring only as glosses, and therefore to be treated with caution: with an old *π* there are ὄμπ-νη· τροφή, εὐδαιμονία, Δημήτηρ Ὀμπνία (cp. alma), ὀμπνεύειν· αὐξάνειν, with *φ* the equivalent ὀμφύνειν, and many more of various kinds, partly dubious derivatives. Other combinations with regard to the rt. *ap* and the words akin in 'Studien' i. 1. 261. — To the Latin word of this group Corssen 'Ital. Sprachk.' 147 wishes to add also *opī-mu-s*. — Perhaps the OIr. *áne* 'divitiae' (acc. plur. *ánu*, a u-stem Z². 240) belongs here.

ἀλειφ-ω has been discussed under the rt. λιπ (No. 340). It might be difficult to prove any special occasion for aspiration in this verbal form, which is shown to be primitive by its 'addition of sound,' in the noun-forms ἄλειφ-αρ, ἀλοιφ-ή.

ἀπ-αφ-ό-ς· ἕψω, Lat. *up-up-a* was mentioned under No. 336.

ἅπτω 'tie,' 'bind,' 'seize,' in the middle, 'seize on,' 'take part in,' ἀφ-ή 'tactus,' 'union,' ἀφάσσω 'feel' (by-form ἀφασσάω), ἀπ-αφ-ίσκω 'deceive,' show the aspirate, while ἀπ-ήνη 'team,' ἠπ-ά-ο-μαι 'mend' (ἠπη-τή-ς, ἠπή-τρια) and ἀπ-ά-τη, perhaps also ἤπιο-ς in the sense of 'friendly,' 'accessible,' have retained the *π* unaltered. It is impossible to decide in the case of ἅμμα and ἀψί-ς 'fastening,' 'vaulting.' Lat. *ap-ĕ-re* 'comprehendere vinculo' Paul. 'Ep.' 18,
511 to which belong *ap-tu-s* and *ap-i-sci*, and with which Skt. *āp* 'attain to,' 'arrive at,' is also related, contains the original final letter. Cp. Fick i³. 16 and my 'Commentatio de forma ἐάφθη' L. 1870. For the change of the breathing at the beginning cp. p. 687. Whether Lat. *ā-mentu-m* 'thong' belongs here has been made very doubtful by the glossematic form *admentum* established by Loewe 'Prodr.' 367 ff.

βλέφ-αρο-ν by the side of rt. βλεπ has been touched upon

on p. 505. *γνίφων-ες* 'niggards' and *σκνιποί* will have to be discussed on p. 703.

γρῖφος, interchanging with *γρῖπο-ς*, 'rush-net' — for both forms are about equally well authenticated — has no quite certain etymology. The most probable comparison, mentioned under No. 516, seems to me that given by Pott i[1]. 140, and also approved by Benfey i. 211, viz. with *ῥίψ* (gen. *ῥῖπ-ός*) and Lat. *scirp-u-s*, OHG. *sciluf*. *γ* as a weakening of *σκ* will be discussed on p. 703. If this comparison is correct, it establishes the priority of the *π* and we have a new case of aspiration.

The form καφ by the side of καπ, *καπ-ύ-ω* has been already quoted under No. 36. Besides *κε-καφ-η-ώς*, the perfect *κέ-κηφ-ε· τέθνηκε* (properly *spiravit*) preserved by Hesych., also belongs here; Lobeck 'Rhem.' 46 well compared it with *ἐγ-κάπτει*, i.e. *ἐκ-κάπτει· ἐκπνεῖ*. The perfect, as the tense of completed action, expresses without the help of the preposition *ἐκ*, what the present-stem only succeeds in expressing by means of it.

κεφ-αλή we learnt on No. 54 to recognize as the correlate of the Skt. *kapála-s*. In this case we may notice the medial in the dialectic forms *κεβάλη*, *κέβλη*, to which we shall recur on p. 539.

κοῦφο-ς 'light,' in the sense of *levis*, is compared by Leo Meyer (i. 51) with Skt. *kap-alá-s* (rt. *kamp*) 'moveable,' 'light-thoughted,' 'frivolous.' Hesych. furnishes the by-form *κεμπός*, which is explained by *κοῦφος*. Cp. *κεμφάς· ἔλαφος*. Joh. Schmidt 'Vocal.' i. 115.

κωφ-ό-ς in its relation to rt. κοπ, and especially to Goth. *hamf-s* 'mutilated,' has been discussed under No. 68 b.

λαφ-ύσσω we found ourselves obliged at No. 536 b to place with *λάπτω* rt. λαπ.

πομφό-ς 'blister,' 'swelling,' *πομφόλυξ* 'bubble,' are well grouped by Fick i[3]. 661 with Skt. *pippala-s* 'berry,' 'nipple,' Lat. *papula* 'blister,' *papilla* 'nipple,' 'small swelling,' Lith. *pápa-s* 'nipple,' 'breast.' Add also ChSl. *pąpŭ* 'umbilicus.' The Lith. verb *pamp-ti* 'swell out,' 'grow fat,' contains the common idea. Lat. *pamp-inu-s* 'shoot of the vine' might also belong here. Many of these words have been already quoted by Pott i[1]. 109, 193.

ῥαφύ-ς by the side of *ῥάπυ-ς* under No. 511.

512 σαφ-ής and σοφ-ό-ς by the side of *sap-io* I formerly placed under No. 628, now I can only say that the two words are certainly connected (Fick i³. 993). We have a form phonetically remarkable in ἐπίσσοφος, the name of an office which Boeckh ('C. I.' ii. p. 371) compares with that of the γραφεύς or ἀντιγραφεύς, on the Theraic inscription C. I. G. 2448, 6, l. 30 ff. The double σ doubtless points to σϝ, and in any case justifies the retention of the sibilant before the vowel. From a rt. σϝαπ we could easily explain also σύφαξ ('must'), συφακίζειν (ὀπωρίζειν), ἀ-σύφ-ηλο-ς, Σῖ-συφο-ς (cp. Τῖ-τυρο-ς, Τῖ-θωνό-ς, μῖ-μο-ς) and σέ-συφος· πανοῦργος (Hesych). To the Lat. *sap-io* without aspiration is attached OHG. *ant-seffan* ('intellegere'), and also probably (cp. Pauli 'Ztschr.' xviii. 12) σαπ-ρό-ς 'rotten,' σήπ-ειν 'rot' (σέ-σηπ-ε, σαπ-ῆ-ναι). From the primary notion 'taste' comes both the meaning of a delicate taster, of a penetrating sense; σοφ-ός *sapiens*, *sap-idu-s*, *ant-seffan*, and also σαφ-ής 'tasteable,' 'recognizable,' 'clear,' and σαπ-ρό-ς 'smelling,' with the regular interchange between the sense of taste and that of smell. The retention of the physical primary meaning — with which we have also *sap-a* 'must,' σύφαξ, and OHG. *saf* (Germ. *Saft*), — is an advantage of the Latin. Σίσυφος is the σοφός in the superlative, ἀ-σύφ-ηλο-ς 'insipiens.' Cp. Van. 992. σκάφ-ος, σκάφη we discussed under No. 109, στέφ-ω at No. 224, στύφ-ω at No. 229. στυφ-ελ-ίζω we connected (No. 249) with στυπάζειν and τύπτειν. The connexion of τρέφ-ω with τέρπ-ω, maintained by Pott, was seen at No. 240 to be probable.

We have another instance of aspiration in the middle of a word in the rt. ταφ, which appears in ἐ-τάφ-η-ν, τάφ-ο-ς (pres. θάπ-τ-ω). For the identity of this root with Skt. *dabh*, conjectured by Kuhn 'Ztschr.' ii. 467, finds no confirmation in the usage of the latter root as stated by the 'Pet. Dict.' ('damage,' 'deceive'). But it is equally impossible to hold another etymology, supported by Bopp 'Gl.,' Pott i¹. 257, Grimm 'Gesch.' 231, according to which ταφ would be equivalent to Skt. rt. *tap* 'burn,' from which on p. 501 we derived τέφ-ρα. This etymology, which would suit very well with the very ancient custom of burning corpses, appeared to receive its main support from the gloss of Hesych. ἄθαπτος·

ἄκαυτος. But the addition ἢ ἄκλαυστος· θάψαι γὰρ τὸ κλαῦσαι (so the MS.) turns the whole notice into a puzzle, which can give us no help. As Hugo Weber shows in Jahn's 'Jahrb.' 1853 p. 597, θάπτειν means in Homer properly 'to inter,' while τάφος, ταφή and especially τάφ-ρο-ς 'ditch,' do not at all suit the notion of burning. Hence it is much better to 513 accept Hugo Weber's own explanation, advanced also by Pott ii[2]. 467, but not held to by him, from the rt. *dha* (No. 309) from which *dha-p* would be an expansion (cp. *dhū-p* Gk. τυφ No. 251). In Skt. the causative from *dhā* 'put' is *dhāpájā-mi*. From 'put' comes readily the notion of condere 'put aside,' 'put away with care.' ἐ-τάφ-η-ν was then based upon the aspiration of the final consonant, and in consequence of this, the loss of aspiration of the initial. But a difficulty is presented by τάφ-ρο-ς, inasmuch as the word does not mean 'grave' but any kind of trench[1].

The aspiration of a medial is limited to a much narrower range. This is easily understood, since the hard aspirate, the only one known to the Greeks, is one step further removed from the medial than from the tenuis. The aspirate which has arisen from a medial has evidently undergone a double change: on the one hand it has been hardened, on the other it has been also aspirated. General considerations are therefore of themselves sufficient to make us especially cautious in admitting such a transition.

So far as I know, it has never been maintained that in any case an initial χ corresponds to a primitive *g* in the kindred languages, or a φ to a *b*. On the other hand there are some words in which it looks as if θ corresponded to a primitive *d*. But a careful investigation compels us to deny this agreement most positively. The first word belonging here is θεό-ς, which is commonly grouped with Skt. *dēvá-s* and Lat. *deu-s* (No. 269).

[1] Recently Joh. Schmidt 'Vocal.' i. 164 has compared τάφρο-ς with ChSl. *dĭb-rĭ* 'ravine,' OHG. *tobel* 'saltus,' Lith. *dub-ù-s* 'hollow,' 'deep,' *dúbė* 'pit,' Goth. *diub-s* 'deep,' from which we should arrive at a rt. *dhabh*, *dhambh*. In that case we should have to separate τάφρο-ς from τάφο-ς, and certainly from θάπτειν. — Cp. also OIr. *fudomain* 'deep' (Z[2]. 874), Cymr. *dwfn* 'deep' with OIr. *domun* 'world,' OGall. *Dubno-rex*, *Dumno-rix*.

At the first glance the identity of these words seems evident to any one from the complete identity of meaning, and the (apparently) almost entire agreement in sound. But I have maintained above, not without the most cogent reasons, and following the example of Schleicher ('Zeitschr.' iv. 399 [cp. 'Comp.[3]' p. 206]) and, as Pott W. i. 992 informs me, of Windischmann before him, that Gk. *θεό-ς* is quite distinct from the words that come from rt. διϝ 'shine.' I will however go into the question here with more precision, because of the importance of the word, and because of some new points of view, which have been recently suggested.

In the first place, to get a clear view of the relations of the vowels, the Skt. *dēvá-s* evidently goes back to *dai-vas*. From this we arrive, it is true, at the Ital. *deivo-s*, and from
514 this again at **dēu-s*, *dĕu-s* (Corssen i[2]. 381), but the vowel of the stem-syllable in *θεό-ς* of itself creates difficulties. In the numerous derivatives there is not a single trace[1] of the diphthong *ει*, which we expect as the representative of the Skt. *ē* and of the Osc. *ei* (*deivai* = *deae*). To prove a trace of the ϝ, forms like *Θεῦ-γνι-ς*, *Θεύ-δοτο-ς* in certain branches of Doric have been appealed to, but it results from Ahrens' discussion of these forms ('Dor.' 215), that *ευ* is here contracted from *εο*. Still less can anything be proved by the form *θεῦ-ς*, the only certain instance of which is in Callimach. 'Hymn. in Cer.' 58 (*γείνατο δ' ἁ θεῦς*). Instead of the corresponding accusative *θεῦν* v. 130 Meineke and O. Schneider, with good MSS. have taken into their text *θεόν*. This form is naturally also contracted, and there is a very easy solution of the objection which Sanneg raises against it in his doctoral dissertation 'De vocabulorum compositione Graeca' (Halis 1865) p. 14, to

[1] It is true that on late inscriptions ΘΕΙΟΣ occurs for *θεός*, but K. Keil, who discusses the question 'Zur Sylloge inscript. Boeotic.' Supplementb. iv. to Jahn's 'Jahrb.' p. 615, shows that we have to do here with times and districts, which occasionally supply us ΙΕΡΕΙΩΝ for *ἱερέων*, ΑΤΕΙΛΕΙΑΝ for *ἀτέλειαν*, and the like. Forms of this kind therefore belong to that period of the Greek language, in which *e* and *i* begin to be confused, and in which undoubtedly ΕΙ was pronounced like *i*. It would be a defiance of all critical principles to choose to employ such examples to explain any Greek etymologies.

the effect that a form θεύς contracted from θεός would be necessarily oxytone. For Herodian, the master of prosody, περὶ μονήρους λέξεως p. 6. 8 expressly ascribes this accent to the word: τὸ δὲ θεὺς ἐκ συναλοιφῆς ἐστι ποιητικόν. Hence O. Schneider with the best MSS. actually writes θεύς. Voretzsch 'De inscriptione Cretensi' (Halis 1862) appeals to the proper name Θευόδοτος. But this name is found, not as V. says 'in nummo Apollonopolitarum,' but in an inscription of thanksgiving set up by a Jew of Apollonopolis at a late date, and the editor, Letronne ('Revue de Philologie' tome i. 304, 1845) even regards it as possible that the reading is incorrect. What can be the value of such a late scrawl, which is put out of the question simply by its date, in the case of a word, which is transmitted to us a thousand times from all dialects? If the writer did write so at all, he confused Θεύδοτος and Θεόδοτος. At the first glance more weight seems due to a form, which has been quoted by the same scholar from Cretan coins, and has been regarded by others as a certain proof that between the two vowels of θεός a ϝ once existed. There are two coins of Gortys, both preserved in Paris, described by Monnet 'Description de méd. antiques' vol. ii. p. 280, Nos. 179 and 185, with the legend ΓΟΡΤΥΝΙΩΝ ΘΙΒΟΣ. But the second 515
of these is regarded by authorities on numismatics as decidedly spurious, and hence we cannot take it into consideration. The first, No. 179, is regarded as genuine, but as 'tolerably late' if only from the character of the letters, especially from the Σ; it has upon it the figure of Herakles with .... ΥΝΙΩΝ ΘΙΒΟΣ written round it in regular characters, so that the figure comes between the two words. Now Voretzsch regards it as proved that this legend meant 'God of the Gortynians.' And it is true that it would agree phonetically with what we know of the peculiarities of the Cretan dialect to regard ι here as representing an ε, β a ϝ (cp. ἀβέλιος, Βολοέντιοι — Ἄρια, τίριος), so that it might almost seem as though the form *θεϝό-ς were proved. Even the circumstance that this common word occurs elsewhere in Cretan inscriptions only in the form θεός, and in Hesych. as θιός (Κρῆτες), does not carry much weight with it, for, to say

nothing of local differences, there is much inconsistency in cases of this kind. But the legend 'God of the Gortynians' would be all the more surprising. On enquiring from several scholars familiar with coins, I received the answer that there was no parallel to such a legend, for it is evident that θεὸς Σεβαστός, θεῷ Καίσαρι Σεβαστῷ, θεὰ Ῥώμη are different; in all these cases it was necessary to say that a god was concerned, in the former not so. The most common superscription is, as is well known, the simple genitive, as Γορτυνίων, to which every one supplied the nominative 'coin.' How strange it would be to find in the place of this θεός! Hence it must certainly not be regarded as proved that θιβός in this case meant god. Most of this information I owe to my brother Ernst. W. H. Roscher ('Studien' ii. p. 154) by a careful comparison of corresponding coins has recently arrived at the conclusion that ΘΙΒΟΣ does not belong at all to ΓΟΡΤΥΝΙΩΝ, but is rather the name of a master of the mint. Baunack ('Stud.' x. 84), following Fick's theory of the abbreviation of names, acutely explains Θίβος as a shortened name for Θεόβουλος. Cp. Πόλυ-βο-ς, Κλέο-βι-ς.

But granted that we had actual authority for the ϝ after ε, this would by no means remove the difficulties. Instead of the ϝ, we find in the old compounds σ, θέσ-φατο-ς; and θέ-σκε-λο-ς, θε-σπέ-σιο-ς, θέ-σπ-ι-ς (cp. p. 467) supply a still shorter form. It would be very convenient to get out of the difficulty by regarding the dental sibilant σ as simply a permutation of the labial ϝ, a course which Sanneg, in the treatise mentioned above, p. 13 and Savelsberg 'De digammo' p. 39, think themselves justified in adopting. But as a fact this transition
516 cannot be made probable in any single instance, if only because the two spirants are articulated at different points of the mouth. It would be better to agree with Pott, who in W. i. 998 comes back to the view that the syllable θες is shortened from the dat. plur. θεοῖς. But if we remember the age of the words quoted, which are indeed Homeric — Pott adds also Θεσ-πρωτοί, — and the unexampled character of such a contraction, we shall not be very ready to accept it. And even if we could set aside these objections, which, it seems to me, cannot easily be removed, we should still be far enough from the

possibility of identifying θεός with *deus*; for there are other impediments to the explanation of the Greek forms from the stem *daiva*. Why, for instance, did the word become so completely separated from the rt. διϝ, if it belonged to it? How did θεῖο-ς originate by the side of δῖ-ο-ς = *divja-s*, *divu-s*, or why, on the other hand, was not the δ of δῖ-ο-ς or Δι-ός aspirated, these forms having similarly lost a ϝ? If we are to assume an instinctive feeling in language of the mutual connexion of forms which come from one root, nothing is more suspicious than the deviation of one form, and further one which in meaning is by no means remote, from the course of the rest. But if any one assumes in the case of θε-ό-ς on the ground of equivalence of meaning, the loss of a ϝ, the shortening of the diphthong, and the aspiration of *d* into θ, he assumes a series of fortuitous phenomena such as in other cases are not wont to serve as criteria of truth or even of probability.

The old view has found an advocate in Legerlotz ('Ztschr.' vii. 307). But in the first place all the traces of a Greek form δεό-ς by the side of θεό-ς, to which he appeals, are very doubtful. Montfaucon ('Diar. Ital.' p. 223) quotes the form *δέαινα, not 'from an old inscription,' but merely to support his etymology of *Deana* = *Diana*, which occurs in a Latin inscription, and he gives no authority for it. The form δέος· θεός, mentioned in Hesych., must be taken with δέα· θεά. To the latter is added ὑπὸ Τυρρηνῶν, so that we have no right to quote the form as Greek. The form with θ, or in place of this its representative σ, is so abundantly authenticated from Doric and Aeolic dialects, that there are the best established objections to the statement of the 'Excerpta e cod. Vaticano' p. 692 (post Gregorium Corinth. ed. Schaefer), that the Dorians pronounced δεούς, δεά. Again, no one of those, who identify θεό-ς with *deu-s*, has been able to adduce other instances of the asserted change of the medial into the aspirate, except Gk. θύρ-α = Skt. *dvâra-m*, Gk. θυγάτηρ = Skt. 517
duhitâ. But in the case of both these parallels, as is shown under Nos. 318, 319, the original initial letter is proved, especially by the Teutonic languages, to have been an aspirate. In the dearth of exact analogies, recourse has been had to inexact ones. Some have attempted to prove that the digamma

of a subsequent syllable has the power of attaching itself to an initial tenuis in the form of an aspiration. But here too the material for the proof is deficient. Again and again *φιάλη* and *φιαρό-ς* are quoted, which are supposed to have come from *πιϝαλη*, *πιϝαρο-ς*. The nullity of this explanation has been shown above (p. 508). The forms *ἐφί-ορκο-ς* by the side of *ἐπί-ορκο-ς* and *ἐφι-άλλω*, *ἐφι-άλτη-ς*, inasmuch as both are compounds, and the rough breathing of *ὅρκο-ς* is only conjectured to have originated in a digamma, while that of *ἅλλομαι* = *salio* certainly did not, prove nothing for this supposed influence of the labial spirant in simple words, but belong rather to the sphere of the transposition of aspiration. The form *δει-ό-ς* with interaspiration postulated by Legerlotz l. c. is quite without analogy. Besides, these examples would by no means prove the transition of a *medial* into the aspirate. This proof we can only expect from Legerlotz, who 'Ztschr.' vii. 308 promises to give us some other time other examples which for the present he withholds. But this whole hypothesis of transposition is worthless. We have only to remember the great number of words, which have lost a digamma from the middle, without the initial letter being in the least affected; e.g. to take only those that lie nearest to hand, *κο-έ-ω* (No. 64), *γα-ί-ω* (No. 122), *δαήρ* (No. 257), *δα-ί-ω* 'burn' (No. 258), *δέ-α-το* (No. 269), *πα-ί-ω* (No. 344), *πά-ϊ-ς* (No. 387), *πέλλα* (No. 353), *πλέ-ω* (No. 369), *πνέ-ω* (No. 370), *αἰές* (No. 585), *ὄ-ι-ς* (No. 595). In fact, there is not even a shadow of probability remaining for the derivation of the word *θεός* from the primitive form *daiva*, however well-established it was long thought to be. This fact is now at last recognized on most sides, especially by Grassmann 'Ztschr.' xi. 4, and by Bühler 'Or. und Occ.' i. 508, ii. 338.

It is certainly more difficult to substitute a true etymology for that which is to be rejected. Schleicher 'Ztschr.' iv. 399 suggests the rt. *dhu*, Gk. *θυ*, whence *θέω* 'run' (an explanation thought of even in antiquity, Plato 'Crat.' p. 397), as *Wuotan* also comes from OHG. *wat-an* 'meare.' But though a single god may have been called 'runner,' this would be strange if applied to the race of the gods in general. Nor

is the connexion with the Skt. *dhava-s* 'man' (a late word, as we saw on p. 36), suggested by C. Hoffmann (cp. Schweizer 'Ztschr.' i. 158), satisfactory. Several other attempts have 518
been recently made. Bühler 'Or. and Occ.' i. 510 starts from the Norse *dîar*, which word is said to mean gods, assumes (very boldly) *θιό-ς* as an older form of *θεό-ς*, and conjectures in this the rt. *dhī*, either the same as in the Skt. *dhī-s* 'thought,' 'insight,' 'devotion,' or rt. *dī* (*dī-dhī*) 'shine.' In the latter assumption Bühler agrees with Grassmann 'Ztschr.' xi. 4, except that the latter derives this rt. *dhī* from *di*, and thus after all believes that he can still trace it back to the same source, from which came rt. *div* and *dēvá-s*. But it would be hard to prove this assumption, for in what other instance has an Indo-Germanic *dh* originated in a *d*? If we wished, however, to hold to one of these derivations, of which the second would be the better as far as meaning goes, we should have to presuppose a stem *dhaj-a*. But from this again we cannot get to *θέσ-φα-το-ς*. A different view again is suggested by A. Goebel 'Ztschr.' xi. 55, who takes θεc as the root but regards this as only an expansion of θε 'place.' We should thus have again the idea of creator or orderer, which Herodotus ii. 52 thought he had discovered for *θεοί* (*οἱ κόσμῳ θέντες*). This explanation hardly suits the Greek view of the Deity.

The etymology of *θεός* has been recently discussed very thoroughly and with his usual acuteness by Ascoli ('Rendiconti del Reale Instituto Lombardo,' Classe de lettre e sc. moral. e polit. iv. fasc. 6, and now again in 'Kritische Studien' 292 ff.), and his explanation of this difficult word has met with the approval of Schweizer in a full review of the question ('Ztschr.' xvii. 142). Ascoli returns again to the rt. *div*, though in a very different way. He identifies *θεό-ς*, not with Skt. *dēvá-s*, but with *divjá-s* 'heavenly,' which in the Vedas is oxytone, though later barytone. From *div-já-s* he gets **διϝ-εό-ς* (like *ἐτ-εό-ς* from *sat-já-s* No. 208), hence with a loss of the *ι* **δϝ-εό-ς*, by aspiration **θϝ-εό-ς*, and finally by the suppression of the *ϝ* *θ-εό-ς*. But even his starting-point seems to me open to objections. Ascoli attaches great importance to the accentuation. Although I admit that after

the investigations of the last few years, more extensive agreement has been demonstrated between the Sanskrit accent and that of the cognate languages, than could have been regarded as probable according to the former aphoristic method of treatment of the questions, yet the assumption of a Greek accentuation *διϝ-jó-ς* remains a very bold one. For in the first place, as Lindner 'Nominalbildung' 138 ff. shows, the accentuation of the derivative adjective-stems in *ja* in Sanskrit is anything but strictly determined by rule, and remarkable as it is that two Greek adjectives, i.e. *ἑτ-εό-ς* and *κεν-εό-ς*, with *ε* as the representative of the *j*, agree in
519 their accent with the Skt. *sat-já-s*, *cūn-já-s* (No. 49), yet it is a definite rule for Greek that all adjectives in *-ιο-ς* which can be recognized as derived from a noun-stem, are barytone. But *διϝ-jo-ς* or *διϝ-ιο-ς* is clearly derived from the st. *Διϝ* 'heaven,' or 'the god of heaven;' hence we should have had to expect *δίϝ-ιο-ς*, just like *αἰθέρ-ιο-ς*, *ποτάμ-ιο-ς*, *οὐράν-ιο-ς*. This *δίϝ-ιο-ς* with the regular representation actually occurs in *δῖος* (for *δι(ϝ)-ιο-ς*). I concede to Ascoli, that he has supported every one of his assumptions by some kind of analogy, and should follow no one with greater pleasure than him in regard to the case itself. What hinders me from doing so is the fact that each one of the steps, which must be assumed in this etymology, has only very scanty analogies: the dividing of a primitive form into two very different forms in consequence of the accent; the rejection of a radical *i*, for which *δοάν* from **διϝᾱ-ν*, to be discussed on p. 572 is adduced; the aspiration of a medial before a continuous sound, with which we are especially concerned here. The union of so many unique phenomena within one disyllabic word does not seem to me to be probable. But there is the further objection, that we do not after all in this way arrive at a complete identity of *θεό-ς* with the Lat. *deu-s* and Lith. *dĕva-s*. For the Latin and Lithuanian words are universally assumed to go back to the primitive form **daiva-s* = Skt. *dēvá-s*. Ascoli indeed ('Krit. Stud.' p. 296) indicates that 'he does not give up the most complete identification of *θεός* and *deus*,' but until some other view is established, we shall continue to regard **deivo-s* (cp. Osc. *deívaí*) as the form intermediate

between **daiva-s* and *deu-s*, and as etymologically equivalent to Skt. *dēvá-s*. It is true that in the 'Pet. Dict.' *dēvá-s* like *div-já-s* (later *dív-ja-s*) is translated by 'heavenly.' But it is not said there that *dēvá-s* is a secondary formation. The word in its formation goes along with primary nouns, i.e. those formed directly from the root, like *ēhá-s* 'desiring,' *tvēshá-s* 'violent,' *rōkká-s* 'shining,' with which, as I indicated on p. 237, it is placed al o by Lindner. This brings us to the primitive meaning 'shining,' which was long ago maintained by Max Müller. Among the secondary formations in *-a* collected by Lindner p. 119 ff. I do not find a single one which is comparable with *dēvá-s*. Hence I see no reason to recall the view that *dēvá-s* = *deu-s* meant originally 'the shining one,' while *div-já-s*, with which Ascoli connects *θεός*, meant 'the heavenly one.' If nations so closely akin as the Lithuanian and the Slaves, the Indians and the Persians (No. 408) had different names for God, why should not the case have been the same with the Greeks and Romans? Compare further the discussion of this question by Max Müller, who is in favour of the identity of *θεός* and *deu-s* in 'Chips' vol. iv. pp. 239–242, 'Select Essays' i. 215–200.

After all, I still think that explanation the most trustworthy, 520
which I formerly, agreeing with Döderlein, stated under No. 312 b[1]. According to this, *θεό-ς* would be derived from

[1] In the third edition I omitted this number, because the connexion of the rt. *θες* with the Lat. *fes-tu-s*, *fer-iae* had been made doubtful by the objections raised against it by Corssen 'Ztschr.' xi. 421 (i². 141) and Pott (W. i. 166). The rt. *θες* occurs in the forms *θεσσάμενοι* = *αἰτησάμενοι* (Archil. 'Fr.' 11 B².), Cretan *θησάμενοι* (Hesych.), *θέσσαντο· ἐξῄτησαν, ἱκέτευσαν, θέσσεσθαι· αἰτεῖν ἱκετεύειν* Hesych., *πολύ-θεσ-το-ς* 'much besought,' *ἀπό-θεσ-το-ς* 'cursed,' and in the proper names *Θέσ-τωρ*, *Θέσσ-ανδρο-ς*. It is natural also to explain *Πασι-θέ-η*, the name of the youngest of the Charites, as 'desired of all.' We should have in this word a passive *θεό-ς*, only in a somewhat different sense. *θεό-ς* 'God' would mean pretty much the same as *ζ* 280 *πολυάρητος* 'the object of prayer' (*ἠέ τις εὐξαμένῃ πολυάρητος θεὸς ἦλθεν*). Thus we should explain *θέσ-φατο-ς*, *θέσ-κελο-ς* (or *θέ-σκελο-ς* from the rt. *σεκ*, *σεπ* No. 632?), with an *o* 'bitten off,' as Pott W. i. 996 says, like *ζεί-δωρο-ς* for *ζειό-δωρο-ς*, *ληϊ-βότειρα* for *ληϊο-βοτειρα*, *Δηΐ-φοβος* (terror of the *δήϊο-ι*), in which cases we must not forget the impos-

rt. θεc 'desire,' 'pray,' in just the same way as πηγ-ό-ς, λοιπ-ό-ς, κωφ-ό-ς (No. 68 b) from their roots. With the Laconians and Cretans the ε before vowels would have undergone the same change into ι, as with the Cretans in τίριος = θέρεος (st. θερες) and with the Boeotians in ϝέτια = ἔτεα (st. ἐτες). This meets an objection brought forward by Roediger 'Ztschr.' xvi. 158. As for the spirant which has disappeared after ε, I will not lay any stress upon the Cretan θε-ϊνό-ς (C. I. No. 2557 B 17), for Ascoli p. 307 justly quotes against me ὀστέ-ϊνο-ς and similar formations, but it is perhaps no accident that, as Nauck 'Bulletin de l'Acad. de St. Pétersb.' vi. p. 9 points out, in Homer θεῖος occurs for the most part [1] only in places where the diph-
521 thong is in thesis, or, in other words, perhaps did not yet exist.

But while we thus deny the aspiration of a medial at the beginning of a word, it must be admitted in some cases in the middle. παχύ-ς 'stout,' 'fat,' 'coarse,' 'thick,' with πάχ-ος, πάχ-ετο-ς, παχύ-νω cannot be separated from No. 343, i.e. πήγ-νυ-μι 'fix,' πηγ-ό-ς 'firm,' 'strong.' We must take into account the Homeric phrases χεῖρα παχείαν and κύματι πηγῷ, αἷμα παχύ (Ψ 697) and the Attic πεπηγός. But with παχύ-ς

sibility of bringing these words with *o* into the hexameter. Compare also Κρησ-φύγετο-ν, θεμισ-κρέων, θέ-σπ-ι-ς for θεσο-σπι-ς, ἡ-μέδιμνο-ν = ἡμι-μέδιμνον, κελαι-νεφής = κελαινο-νεφής, and of forms not compounds one quoted by Pott himself μέσ-φα for μεσο-φα (φα = Skt. *-bhjas*) and νόσ-φιν probably for νοτι-φιν (No. 444 c). Ascoli p. 306 attempts to explain θες from the Skt. *div-as*. This is open to the same objections as his explanation of θεός. — Pott's view (W. i. 165) that rt. θες is an expansion of rt. θε (No. 309), in the sense of the Indic desiderative of *dhā*, which in the middle means *inter alia* 'to try to win,' is not improbable, but is not at all opposed to our etymology.—I no longer maintain the comparison of θεσ-τό-ς with Lat. *fes-tu-s*, taken up again by Fröhde in Bezz. 'Beitr.' i. 191, mainly because the proper name is written Φῆστος in Greek. For I believe that analogies could be found for the meaning of *fes-tu-m* (cp. *vō-tu-m*, *sep-tu-m*) as 'prayer,' and *dies festus* as 'day of prayer' (cp. *ca-tu-s*, *cas-tu-s*, *pu-tu-s*, *fal-su-s*, *tū-tu-s*), in the freer usage of the adjectives and neuters (which have become substantives) of this formation. The doctrine of significations for the formation of nouns has yet to be written.—Cp. further Fick i³. 606.

[1 The word occurs twenty-six times in the Iliad, and only twice (B 22, Ψ 689) is the diphthong necessary for the metre.]

is connected *pingu-i-s* (cp. Corssen 'Nachtr.' 88), which in almost every respect, and especially in its application to the region of the mind, approximates to the meaning of *παχύ-ς*: *pingui-s* must be for **pengui-s* as *quinque* for *quenque*; it is related to *παχύ-ς* much as *tenui-s* is to *ταυυ-* (No. 230), *bre(g)v-i-s* to *βραχύ-ς* (No. 396). Greek also would not be without a form with the nasal, if Döderlein 'Gl.' 46 was right in placing here the Homeric *πάγχυ*. *πάγχυ* would be related to the st. *παχυ* as Lat. *angor* and Skt. *ąhas* to Gk. *ἄχος* (No. 166). With *πάνυ*, the explanation of which was attempted on p. 467, *πάγχυ* would have only the stem in common. But in fact *πάγχυ* is entirely unconnected with *παχύ-ς* in its usage, and hence the conjecture of Usener (Jahn's 'Jahrb.' 1865 p. 258) deserves all consideration, that the χ of this adverb is just as much derivative, as in *παντα-χοῦ*, *ἑνια-χοῦ*, *ἦ-χι*—only we must not add to these the totally different *ἄγχι* (rt. ἀϝχ); *υ* would be the Aeolic substitute for *ο* as in *ἄλλυ-δις*, *ἄμυ-δις*, hardly for *οι*, for I know no example of this in the Homeric dialect. The aspirate of *παχύ-ς* finds an evident analogy in *πάχ-νη* 'rime,' 'frost,' by the side of *πε-πηγ-έναι*, *πάγ-ο-ς*, although in the latter case the contiguous *ν* makes it more explicable. Besides, we saw above that the medial in these words corresponds to the tenuis of the kindred languages, so that the aspiration possibly belongs to a time when the latter was still retained, and thus it attaches itself to the cases discussed on p. 501. Of the same nature is the Ionic form *πρῆχμα* for the usual *πρῆγμα*, Att. *πρᾶγμα*, on an inscription from Chios (Cauer 'Delectus inscript.' No. 133 b 20 c 5) from the rt. *πρᾱγ*, which came from *πρᾱκ* (p. 274). — To the influence of the *ν* we must ascribe the aspiration in the poetic word *πρόχνυ*. For in spite of its somewhat strange use in the sense of *παντελῶς* (*πρόχνυ ὀλέσθαι Φ* 460), which can be explained however by *πρόρριζος*, *προθέλυμνος*, and the usage of *γούνατα λῦσαι*, *ἐν γούνασι κεῖται*, we are obliged on account of *πρόχνυ καθεζομένη* (*I* 570) to hold to the old derivation from *πρό* and *γόνυ* (No. 137). Cp. Skt. *pra-ǵnu*, Zd. *fra-shnu* (Fick i³. 556). 522
Cp. below p. 530.

Fick 'Ztschr.' xxii. 110 has discussed *θ* corresponding to an old *δ*. According to Christ p. 105, we find this in '*κάνθραξ* (*sic*)

from *κάνδαρος*.' The former word is based upon a misprint; it should evidently be *ἄνθρακ* ('coal'): *κάνδ-αρο-ς· ἄνθρακ* in Hesych., discussed by Legerlotz 'Ztschr.' viii. 207, is the source of the comparison. But the assumption that *ἄνθρακ* has lost an initial *κ*, rests upon no analogy, while *κάνδ-αρο-ς* attaches itself to Lat. *cand-e-o* (No. 26). No etymology of *ἄνθρακ*, at all probable, has indeed as yet been found. Lobeck's groupings 'El.' i. 108 are untenable. — *ἄν-θ-ρ-ωπο-ς* in its relation to *ἀν-δ-ρ-ός* etc. has been discussed under No. 422 (cp. also Pott 'Personenn.' 462). As the dental consonant in this stem has only developed between *ν* and *ρ*, we are the less astonished to find it taking the aspiration, especially under the influence of the *ρ*. — *μαλθ-ακό-ς*, a by-form of *μαλ-ακό-ς*, has been compared with the Skt. rt. *mard* 'conterere,' in which case *θ* would act as the representative of *d*; but the comparison is incorrect, as has been shown under No. 457. We must rather regard *μαλ* as the root, and the *θ* as formative.—*μέθ-η* is to be separated from Skt. *mad* 'to be drunken,' as we saw under No. 322, and is to be derived rather from *μέθυ*, which had the aspirate from the first.— *ξανθό-ς* 'yellow,' in Greek an isolated word, with *ξουθό-ς* (for *ξονθός*?), the meaning of which is distinguished by later writers from that of *ξανθός*, though probably originally identical, is compared by Aufrecht on 'Uǵǵvaladatta' p. 275 with the Vedic *çḱand-rá-s* 'shining,' for which *ḱandrá-s* ('gleaming,' 'light,' 'colour of gold') is more usual afterwards, just as the rt. *ḱand* 'shine,' is also, according to the 'Pet. Dict.,' shortened from *çḱand*, though Benfey 'Ztschr.' vii. 59 thinks it came from an original *skand*, and compares it with Lat. *cand-e-o*. As we must in several instances recognize *ξ* as the representative of *sk* (as will be seen on p. 698), and as in the form **skand-ra-s*, which we must presuppose, two conditions, under which aspiration readily occurs, are found united, namely, a nasal preceding and *r* following, the connexion of *ξανθό-ς* with this adjective has great probability. In *κάνδ-αρο-ς*, mentioned above, we should have the root with the loss of the *s*, but with the *d* unchanged. We should be obliged to assume a suppression of the *ρ* after the *θ*, and as this cannot be thoroughly justified, Fick i³. 806 prefers to assume for *ξανθ-ό-ς* a primitive form **skand-a-s*. The rt.

skand has been recently discussed thoroughly by Ahrens ('Or. u. Occ.' ii. 8), though I cannot possibly follow him in the 523
Proteus-like metamorphosis of this root, which he assumes. Hugo Weber (Fleckeisen's 'Jahrb.' 1863 p. 599) regards *skan-d* and *skan-dh* as two independent expansions of a rt. *skan*, which is merely inferred. — Within the Greek language the medial seems to yield to the aspirate in the forms *ῥαθ-άσσ-ω* 'sprinkle,' *ῥαθ-αίν-ω* 'sow,' *ῥαθά-μιγξ* 'drop,' by the side of *ῥαίν-ω*, which is shown by the Homeric form *ἐρράδ-αται* to be a product of the rt. ῥαδ (No. 253). But after all that has been said by Pott (i[1]. 18, ii[1]. 508) and Benfey (i. 115) about these words, their origin and especially the priority of the *δ* remains doubtful. — The *θ* of *ὕθλο-ς*, 'idle chatter,' has been suspected in two different ways of originating in *δ*, by Benfey i. 452, who traces the word back to the rt. ὑδ (*ὕδ-ωρ*, No. 300), and by Christ (p. 104), who bases it upon Skt. *vad* 'speak.' It is an objection to the latter derivation, that the word *ὕθλο-ς* never means anything but *φλυαρία*, and is far removed from the representatives of the rt. *vad* pointed out under No. 298, to the former, that the rt. *ud*, *und* never means anything but 'to wet.' The idea of chattering may indeed be developed from that of 'gushing,' 'flowing over' (cp. No. 412), but not from that of wetting. It would be better to assume as the root ὑ (No. 604), which as we saw, gets to have the meaning 'rain' from that of 'shaking,' 'straining;' in this case *-θλο* would be a suffix (cp. *θέμε-θλο-ν*), and the meaning of the substantive would be related to that of the verbal root as 'what is strained' (*Geseig*) is to 'strain,' 'filter' (*seigen*).

The other cases of this transition assumed by Fick are *ἐρέβ-ινθο-ς* beside the Low German *arft-en*, but here we took *-ινθος* as a diminutive ending (cp. *Κόρ-ινθος*) No. 494, *πλίνθο-ς* beside AS. *flint*, on which we had a similar conjecture under No. 368, *πλάθ-ανο-ν* 'board' because of the Eng. *flat*, which can hardly be separated from *πλατύ-ς* (No. 367 b), the word *σκινθό-ς* 'ducking under,' only established from one place in Theophrastus, which Fick places beside Lith. *skend-au* 'I sink' and Skt. *skand*, which also means 'to fall down,' *σπιθ-αμή* 'spar' (to which we shall return on p. 718), because of ChSl. *spędĭ*, Germ. *spitz*, Gk. *σπιδ-ής*, *σπίδ-ιο-ς*, *στόρθη*, *στόρθυγξ* 'point'

because of Germ. *Pflug-sterz* 'plough tail.' In almost all these cases expansion from the same root is possible.

It would be difficult to prove, putting the formation of the perfect out of the question for the present, that φ ever originated from β. In a few words, where the two sounds correspond, the reverse relation is the more probable.

4. Loss of Aspiration.

524 With the tendency of the Greek language to aspiration, the phenomenon which is the opposite of aspiration, the loss of the breathing, is in itself improbable, and this most of all with the hard consonants. For after the originally soft explosive had become hardened, not without the influence of the breathing, it would have been very surprising to find these hardened consonants again discarding this breathing. In reality, if we disregard changes which belong to late and isolated dialects, it would be hardly possible actually to prove in the case of a single word the origin of a κ, τ, π from χ, θ, φ, i. e. from *gh*, *dh*, *bh*. This deserves to be brought into the more prominence, because the old etymology was much inclined to such assumptions, by means of which, e. g. δέκομαι was regarded as later than δέχομαι, and ἀκέων was traced back to ἀ-χέ-ων (rt. χα, χαν). The supposed Ionic loss of the breathing, which served as the basis for such hypotheses, is, as has often been shown, neither specifically Ionic, nor a loss of breathing, but the retention of the old tenuis as distinguished from the younger aspirate (cp. above p. 505). Even in the Homer. αὖ-τι-ς, compared with the Attic αὖθι-ς, which is always being quoted as an example of the 'tenuis pro aspirata,' the priority of the θ is anything but proved. And at all events the peculiarity of the later Ionism, not to adapt the final tenuis to the initial spiritus asper: ἀπ' οὖ, κατ' ἡμέρην, has absolutely nothing to do with the loss of aspiration, but seems rather to rest upon a lighter pronunciation of the spiritus asper, which became among the neighbouring Asiatic Aeolians complete *psilosis*. But even among the Aeolians and the Dorians the traces of a 'tenuis pro aspirata,' as is seen from the careful investigation of Ahrens, are extremely scanty (cp. Voretzsch 'De inscript.

Cret.' p. 16), and to a large extent are to be explained by an uncertainty which in later times became very extensive (Führer 'De dial. Boeot.' p. 6).

An ordinary Greek κ or τ as the representative of the corresponding Indo-Germanic aspirates has never been assumed, so far as I know, in any single word with the slightest probability. More frequently π is supposed to represent *bh*; and in three cases there is, at first sight, a certain plausibility in this: *καρπό-ς*, in the meaning of 'wrist,' has been repeatedly compared with Skt. *karabhá-s*, which means the metacarpus, and also the trunk of the elephant, and is evidently derived from *kará-s* 'hand.' In Homer we find only the phrase χεῖρ' ἐπὶ 525
καρπῷ, in which a further meaning of 'the hand on the turn' (cp. *καρπ-άλ-ιμο-ς*, *κραιπ-νό-ς* for **κραπινό-ς*) may be faintly discerned. According to this the similarity of the Skt. word is simply delusive. Joh. Schmidt 'Vocal.' ii. 462 connects *καρπό-ς* with ON. *hreifi* 'wrist,' and Lith. *krýp-ti* 'turn,' though certainly the vowels need explanation. — Other parts of the body, especially *πυγ-ή* 'rump,' *πυγ-ών* 'elbow,' have been compared with the Skt. *bhúj-a-s* 'hand,' 'trunk.' The Indian word comes from the rt. *bhuǵ* 'turn,' 'bend,' the Greek representatives of which (rt. φυϝ) have been quoted under No. 163. The meanings also are considerably diverse. The Greek words attach themselves rather to *πύξ pug-nu-s*, *πυγ-μή pug-il*, which are mentioned under No. 384, and are probably connected with the rt. πυκ in *πύκ-α*, *πυκ-νό-ς*, *πυκ-άζω* in the sense of firm, fleshy parts of the body. — The comparison of *σκήπ-τ-ω*, *σκηπ-ί-ων* with Skt. *skabh* 'support,' we rejected under No. 108. Three languages in this case bear evidence in favour of the tenuis.

It is otherwise with the relation of the medial to the aspirate. As the hard aspirates have come from the soft, it is less wonderful that the soft aspirates of ante-Hellenic times sometimes dropped their breathing in Greek, and left only the medial remaining. We have seen that this kind of transformation became the rule in other languages. And Grassmann 'Ztschr.' xii. 94 makes it probable that it was not unknown even in Sanskrit. Still we must not here assume a change without any further enquiry, but we must separate precisely the individual cases.

In the first place we find the simple medial, though exclusively the guttural, in certain Greek words, by the side of which, while the Sanskrit has *gh* or *h*, the remaining kindred languages show the unaspirated medial, or sounds from which this can be deduced. (Cp. Kuhn 'Ztschr.' ii. 270). — To these belongs the word γένυ-ς (discussed under No. 423), Lat. *gen-a*, Goth. *kinnu-s*, but Skt. *hánu-s*, and also the pronoun ἐγών = Skt. *ahám* mentioned at the same place. Here the Lat. *g* of *ego* has no significance, as in the middle of a word it may have come from *gh* as well as from *g*, as also ChSl. *azŭ*, Lith. *àž*, but the Goth. *ik* can only be explained from an earlier *aga*, *agam*. Hence we shall have to start from this form, and to decide from the majority of languages, either that the *h* of the Sanskrit, in the case of this pronoun, was developed from *g* only after the separation of languages, or that before this time a later *ga* had been formed by the side of *gha*. Bopp ('Vgl. Gr.'
526 ii². 102), agreeing with Benfey, regards the syllable *-ha* as 'the elsewhere unaccented particle *ha* (Ved. also *hā*, *gha*, *ghā*), incorporated with the stem *a*, a particle, which like the kindred Gk. γε, Dor. Aeol. γα, is readily attached to pronouns.' This very particle is a new instance of the phonetic relation assumed by us. The usage of the Ved. *gha* and of the Gk. γε is, according to the 'Pet. Dict.,' as good as identical. Both particles are enclitic, both serve for emphasis, in the sense of our 'at least,' 'certainly,' 'indeed,' both are readily appended to pronouns (*sa-gha* = ὅ γε). Latin has nothing corresponding to this particle; the Lith. *-gi* (*tàs-gi* = ὅ-γε) and ChSl. *-že* (Schleicher 'Ksl.' 111, 'Lit. Gr.' 201) may have arisen just as well from *ga* as from *gha*; but Bopp is unmistakeably right in referring here also the *k* of the Goth. *mi-k*, *thu-k*, *si-k* with OHG. *unsi-h*, *iwi-h*; and the Goth. *k*, OHG. *h* can only be explained from *ga*, not from *gha*. Hence we have good reason for regarding the γ in ἐγώ and γέ as extremely old. — For μέγα-ς, in which, on the ground of the Skt. *mahat*, the change from *gh* to *g* has been conjectured, it is sufficient to refer to No. 462. — The case is different with the etymology of λαγώς 'hare,' from the Skt. rt. *laṅgh* 'salire,' proposed by Pott i¹. 232 (doubtfully W. iii. 709), by Bopp 'Gl.,' and elsewhere, and also by Vaníček 784. For here again we find in Gothic (*laikan*

'spring,' 'hop') the *k* which can only be explained from *g*. But the comparison is of such a nature that on the score of meaning we can at most recognize only a certain probability. The word may also be derived without difficulty from rt. λαϝ (No. 146), with a special reference to λαγγεύει· φεύγει. — But even the three or four certain instances, which we have quoted, of a *gh* of later origin in Sanskrit, are sufficient to bring into suspicion the assertion γ = *gh*, at least when stated so generally, and to recommend us caution with respect to etymologies which rest upon it. — Take for example the word γράσο-ς or γρᾶσο-ς 'the smell of a he-goat,' which Benfey ii. 142 connects with Skt. *ghrā*. According to the 'Pet. Dict.' this root means only 'to smell at' (*odorari*), never 'to smell of' (*olere*), and, as we can see especially from the use of the compounds *abhi- ā-*, *ava-ghrā*, the fundamental meaning is 'to snuff at,' and hence also 'to kiss.' This meaning approximates so nearly to the Gk. χραύω and other words discussed under No. 201, that I have no hesitation in regarding these as akin to the Skt. *ghrā*, and the idea underlying them all in common as that of touching closely. Schweizer 'Ztschr.' xii. 306 raises the objection that the Skt. substantive *ghrā-ṇá-m* means also the so-called objective 'smell' in the sense of 'odor.' It is true that in words of sensuous perception the limits between the denotations of the activity and the excitement of the sense are fre- 527
quently shifting.

On the other hand we must recognize the origination of the Greek medial from the aspirate, especially in a number of words in all of which it is preceded by a nasal. —In one case we find both γ and χ.

ἐγγύ-ς 'near' we connected, under No. 166, with ἄγχι and Skt. *ǫhú-s* 'narrow.' With the latter, as with the Goth. *aggvu-s* 'narrow' [Germ. *eng*], ἐγγύς (st. ἐγγυ) is identical.

An isolated *d*, originating in *dh* by the influence of the nasal, occurs in πύνδ-αξ, which is equivalent to πυθ-μήν and is a kind of diminutive of a stem πυθ-να, πυνδα = Skt. *budhná-s* (No. 329). Cp. Joh. Schmidt 'Vocal.' i. 31. — A β by the side of an aspirate may be recognized in the following cases.

βρέμβ-ος· ἔμβρυον (Hesych.) we may probably with Lobeck 'Rhem.' 300 identify with βρέφος (cp. p. 478).

θάμβ-ος is related to the Hom. *τάφ-ος* as *βένθ-ος* to *βάθ-ος*. It is true that even the *φ* in this stem is by no means fixed, for the Hom. perfect *τέ-θηπ-α* and Hesych. *θάπ-αν· φόβον* give *π*. Under No. 233 *stabh* was given as the root. The *θ* therefore is based upon aspiration, *β* upon softening, and *π* on the disinclination to repeated aspirates, Fick i³. 821.

θρόμβο-ς 'clot,' especially of curdled liquids, is justly connected with *τρέφειν* (No. 240) in the meaning of 'to curdle' (*γάλα, τυρόν*), *τροφ-αλίς* 'fresh cheese.'

θύμβρα, a fragrant aromatic plant, 'savory,' has a similar relation to the rt. θυφ, τυφ (No. 251); only on account of the Skt. *dhūp* we can here still more plainly trace the *β* back not merely to *φ*, but also to *p*. To the same rt. *τύμβ-ο-ς* has also been referred: but this word never means the place of burning (*bustum*) but only the sepulchral mound; hence *τύμβον χεῦαι, τυμβοχοεῖν*; and it is distinguished from *θύμβρα, θύψαι* by the absence of the initial aspiration; so that the rt. τυ (No. 247) may also occur to us (cp. *tu-mu-lu-s*). To *τῦφο-ς* 'darkness,' 'beclouding,' 'folly' belongs the word discussed in the 'Greek Verb' p. 408 *παρτετύμβει· παραφρονεῖ, ἡμάρτηκεν*, and *τυμβογέρων· ἐσχατογήρως καὶ παρηλλαγμένος τῇ διανοίᾳ*.

κόρυμβο-ς 'peak,' *κόρυμβα* (*ἄκρα*), 'the sharp curved stern of a ship' [*I* 241 Laroche], are evidently akin to *κορυφή* 'peak' (Lob. 'Prolegg.' 298). *κορυφή* again, like *κόρυ-ς* (st. *κορυθ*) and *κορ-θ-ύ-ω* 'to point,' seems an expansion of the stem *κάρ, κάρα* (No. 38) and indeed a diminutive, like *ἄργυφο-ς, κωλύ-φ-ιο-ν* (Schwabe 'De deminutivis' pp. 56, 68).
528 According to the gloss of Hesych. *κορύμβους πάντα τὰ μετέωρα καὶ εἰς ὕψος ἀνατείνοντα ἐκάλουν* we may place here with Lobeck also the pyramidal tables, called *κύρβεις*, though here indeed no influence of the nasal is to be noticed — just as in Austria the pointed little loaves of white bread are called '*Kipfel*,' i. e. 'headkins.' Fick i³. 542 ascribes *κύρβεις* to a rt. *kvarp* 'turn,' the equivalent of which he finds in the ON. *hverfa*, Goth. *hvairban* 'turn.'

κράμβο-ς 'dry' is certainly akin to *κάρφ-ω* 'parch,' 'shrivel' (cp. Pott W. i. 16), as is shown by Walter 'Ztschr.' xii. 380. Joh. Schmidt 'Voc.' ii. 491 adds Lith. *skrëb-ti* 'to be dry.'

Perhaps we may add, after Benfey's precedent (ii. 177), also *κράμβη* 'cabbage,' which would then derive its name from its shrivelled leaves. Fick i³. 523 indeed, using the supposed Attic by-form *κοράμβλη* (*sic*, not *κοράμβη*) quoted by the scholiast on Aristoph. 'Eq.' 539, compares with *κράμβη* the Skt. *karambhā*, the name of two vegetables (cp. *karambhá-s* 'pap,' 'groats').

κύμβ-η, *κύμβ-ο-ς*, *κύμβ-αλο-ν* 'vessel,' 'cup' [also 'skull:' cp. 'Owens College Essays' p. 314] we connected without hesitation under No. 80 with Skt. *kumbhá-s* (cp. Hesych. *κύββα· ποτήριον*).

ὄμβρο-ς 'violent rain,' Lat. *imber*, was discussed under No. 485. Of the corresponding Skt. words *ámbh-as* 'water,' *abhrá-m* 'storm-cloud,' have the aspirated medial, *ámb-u* 'water,' the unaspirated, the Osc. *anafriss*, if it belongs here, the *f* which we should naturally expect. The fundamental idea, from which these words started, seems to be that of violence, which belongs also to Skt. *ámbh-as*. Compare the Homeric *ὅτ' ἐπιβρίσῃ Διὸς ὄμβρος* (*E* 91). The Skt. *ámbara-m* 'circuit,' 'robe,' 'atmosphere,' is certainly not akin.

στέμβ-ω, *στοβ-έ-ω* we connected under No. 219 with the Skt. *stambh*, the aspirate of which is retained in *ἀ-στεμφ-ής*. If the Skt. *stamb-á-s* 'thicket,' 'stakes,' is akin, as Grassmann 'Ztschr.' xii. 94 conjectures, the medial appears here too in Sanskrit by the side of the aspirate.

στρόμβ-ος 'top,' 'whirlwind,' belongs to rt. στρεφ, from which come also with similar meanings, but without the influence of a nasal, *στροφάλιγξ*, *στροβέω*, *στρόβιλο-ς*, *στρέβ-λη* 'windlass,' *στρεβ-λό-ς* 'twisted,' 'distorted,' *στράβ-ων* 'squinting.' Here we shall therefore be obliged to recognize a more general tendency to the loss of the breathing. It is true that we have no evidence from kindred languages as to the original quality of the labial.

Without the influence of a nasal we see in a limited number of verbal stems the medial interchanging with the aspirate within the limits of the Greek language. The aspirated forms are here as a rule the older, and those prevalent in word-formation, the softer are of later origin, and are limited to a 529
smaller group of forms. This is the case with the roots ὀρυχ *ὀρύσσω*, *ὀρυχή* and the form mentioned as less Attic *ὀρυγή*

(Lobeck ad 'Phryn.' p. 230), πτυχ πτύσσω (cp. above p. 498), Hom. πτύχ-ες, Hippocrat. ἐ-πτύγ-ην, ψυχ ψύχω, aor. pass. according to Moeris p. 214 Bekk. Attic ἐ-ψύχ-ην, Hellenist. ἐ-ψύγ-ην, with ψυγεῖα· ἀγγεῖα ἐν οἷς ὕδωρ ψύχεται Hesych., κρυφ κρύπτω, κρύφα, Soph. 'Aj.' 1145 κρυφείς, where see Lobeck's note. In none of these stems is the aspirate certainly established as the original sound by the analogy of the cognate languages. For ὀρύσσω the Lat. *runc-ā-re* 'to weed' and ῥυκ-άνη 'hoe' (Van. 820) are of importance as supporting the unaspirated tenuis; and similarly πτύσσω points to κ; κρύπτω seems to be originally identical with καλ-ύ-π-τ-ω, which will have to be discussed later on, and only an expansion with *p* from the root retained in the Lat. *oc-cul-ere* (No. 30). Cp. Joh. Schmidt 'Voc.' ii. 285. Hence we are inclined to put down the change to the score of the later pronunciation of the medials, by which these gradually began to grow more like the aspirates which also changed. — It cannot be considered proved at any rate that ὑβό-ς 'hunch-backed,' 'crooked' is identical with κῡφό-ς 'crooked,' 'bent.' The loss of an initial *k*, familiar in Latin, has not been established for Greek. The rt. κυφ, which must be assumed for κύπτω, κῡφό-ς, κῦφος is in any case to be compared with the Lat. *cub* in *cub-are*, (*in-*, *con-*) *cumbere*. But *cubat* appears in Faliscan as *cupa* (Corssen i². 546). Pauli ('Körpertheile' p. 19) conjectures a connexion between κυφός and Skt. *çúp-ti-s* according to the 'Pet. Dict.' perhaps 'shoulder,' Goth. *hup-s* 'hip' (cp. Pott W. i. 668). Joh. Schmidt 'Vocal.' i. 162 holds that *kup* is identical with *kamp* (κάμπτω). Ernst Kuhn 'Ztschr.' xxiv. 99 recalls for ὑβο-ς the Skt. *ubǵ* (*ubǵáti*) 'to press down,' and *nj-ubǵa-s* 'bent,' 'crooked,' whilst he compares κῡφό-ς with *kubǵá-s* 'hunch-backed,' 'crooked.' The origin of both forms is obscure. — But the case is quite different with the rts. ἀλθ and ἀλδ; under No. 303 we learnt to recognize the former as the correlative of the Skt. *ardh*, and hence the *θ* as the regular representative of *dh*. In any case *θ* here enters into the analogy of that root-determinative, which was discussed more fully on p. 62 ff. From this ἀλθ the stem ἀλδ ἀλδ-αίν-ω 'increase,' 'nourish,' ἀλδ-ήσκ-ω 'thrive,' 'grow,' Ἀλδή-μιο-ς surname of Zeus, is so essentially distinguished,

not merely phonetically, but also by usage, that we are not justified in regarding the two forms as equivalent, but only in referring both to the shorter rt. *al* (No. 523 b). — *δ* again apparently meets us by the side of *θ* in the stem *ἐπηλυδ* (nom. *ἔπηλυ-ς* 'stranger,' 'new comer'). But the verbal stem *ἐλυ-θ* has an expanding *θ*. *ἔπηλυ-ς* like *ἐπ-ηλύ-τη-ς* may be derived 530
from the stem *ἐλυ*: *δ* is perhaps only added on the analogy of similar nouns. — The case is clearer with *ψυδ-ρό-ς* (Theognis), *ψεῦδ-ος*, *ψευδής*, *ψεύδομαι* by the side of the Aeschylean *ψύθ-ος* 'lie,' *ἔ-ψυθ-εν*, *ἐψεύσατο*, *ψυθ-ῶν-ες* (cp. *ψιδόνες*), *διάβολοι* (Hesych.). The fundamental notion of whispering, which Benfey i. 560, and Goebel 'Ztschr.' xi. 62 justly assume, comes out clearly from *ψύθος*, *ψίθυρος*, *ψυθιζομένων· γογγυζόντων* (Hesych.). ψυ-θ is probably expanded from ψυ, and ψυ comes from *spu*, the root, meaning originally 'to blow,' discussed by us on p. 509, which is to be regarded also as the source of *ψύ-χ-ω*. From *ψυθ* comes *ψίθ-υρο-ς* 'whispering.' It owes its *ι* merely to the dissimilating influence of the following *υ* (cp. *φῖ-τυ-ς*). *ψίθος*, quoted only by the scholiast on Theocr. i. 1 for an etymology, has no authority. Soph. 'Aj.' 148 (*τοιούσδε λόγους ψιθύρους πλάττων*) is instructive for the transition of meaning. Hence I am inclined in this case to recognize the transition from *θ* into *δ*, which possibly was occasioned by the double consonant at the beginning of the word.

Thus there is only a small number of words remaining, in which an attempt has been made to prove the origination of a medial from the aspirate by a comparison of other languages. With the exception of the cases already mentioned no example of a *γ*=*gh* is known to me, that has any approach to probability. *δ* as the representative of *dh* has been assumed by Benfey i. 27 and after him by Kuhn 'Ztschr.' iv. 123 in *ῥάδ-αμνο-ς* 'rod,' 'switch;' he refers this to the Skt. rt. *ardh* 'grow,' and compares AS. *rôd*, OHG. *ruota*, with which the Lat. *rud-i-s* in the same signification is evidently akin. But we have seen in *ἀλθ* the correlative of the rt. *ardh*, and on the other hand Pott 'Ztschr.' v. 257 ff. has, in opposition to Kuhn, justly pointed to the Aeolic *β* = *ϝ* of the Aeol. *βραδινό-ς* 'slim,' which cannot be separated from *ῥάδ-αμνο-ς*, *ὀρόδαμνο-ς*, while the words quoted from the cognate languages

show no trace of such an initial letter, so that the whole combination utterly breaks down. We placed these words under No. 515. — Gerland 'Ztschr.' x. 452 derives *ῥιδαμό-ς* 'asparagus,' which is given us only by Hesych., and which is suspicious from the neglect of alphabetic sequence, from the rt. *vardh* 'grow;' it is only possible to assume a community of root with *ῥίζα* (No. 515: cp. Siegismund 'Stud.' v. 182).

More frequently *β* is identified with a *bh*, especially in the rt. *βρεμ*, the relation of which to the Skt. *bhram* is discussed fully by Kuhn 'Ztschr.' vi. 152. Between *βρέμ-ειν* (cp. *ὑψι-βρεμ-έ-τη-ς*) 'sound,' 'roar,' *βρόμο-ς* 'roar,' *βρον-τή* 'thunder,' and the Lat. *frem-e-re*, *frem-or*, *frem-i-tu-s* we may recognize an almost complete identity of meaning. To these we may add the ON. *brim* 'breakers' (probably also Corn. *bram* 'crepi-
531 tus ventris' Z². 294), which establishes the antiquity of the *bh*. The corresponding Sanskrit words show instead of the meaning of a whirring sound that of a whirring whirling motion, an idea, which, as Kuhn shows, is further facilitated by particular points of agreement of various kinds between Sanskrit and the Teutonic languages. Thus this comparison, with which Döderlein 'Gloss.' 932 also agrees, may claim at least a certain probability. Cp. Fick i³. 702, Van. 611. We may conjecture that the true form of the rt. φρεμ occurs with a modified vowel in *φόρμιγξ* 'lyre.' For *βρέμεσθαι* is said in Pindar ('Nem.' xi. 7) also of the lyre. *βράσσειν* 'ferment,' 'seethe' (rt. *βρα-τ*) has been compared with Lat. *fre-t-u-m* and *fer-v-eo*, which suit in meaning (Van. 605 ff.). But *β* may here have originated in *ϝ*, so that we discuss the word on p. 587. — Grassmann 'Ztschr.' xii. 93 compares *βρεχ-μό-ς*, *βρέγ-μα* the front part of the head, *sinciput*, with AS. *bregen* 'brain,' from which it would follow that the initial sound was originally *bh*, were there not much doubt remaining, both as to the form and as to the meaning, in the case of a word entirely isolated in Greek. [Hippocrates v. c. 896 derives the word from *βρέχω*, because this part of the head is the longest in hardening.] — It would be easier to believe that *βρύ-ω* 'teem,' *βλύ-ω*, *βλύζω* 'spirt,' both coming often in contact in their compounds, go along with *φλύ-ω* (No. 412 d), which they closely approach in meaning. Cp. Pott W. i. 1139. Corssen

'Nachtr.' 221 connects βρῦτο-ν 'fermented drink,' which apparently belongs here, with Lat. *dē-frŭtu-m.* — Here the question is only as to the interchange of *bhr* and *br*. But that even before a vowel *bh* should have simply become *b*, as Grassmann maintains with regard to rt. *bha*, with which he connects βάζω, seems to me incredible. Even the comparison of βασκαίνω 'bewitch' and *fascinare* (Corssen ii². 257), though attractive as far as meaning goes, does not convince me of it.

A verbal stem, in which we can hardly fail to recognize the same phonetic change where it is not initial, is the rt. λαβ. Here we find even within the limits of the Greek language the forms λάφ-υρο-ν 'booty,' ἀμφι-λαφ-ής 'embracing,' 'wide,' and the perf. εἴ-ληφ-α, where the φ does not quite fall under the analogy of the majority of the aspirated perfects ('Greek Verb' pp. 180, 404). Now we find in Skt. the rt. *labh* (*lábh-ē*) in meanings which fully agree with the Greek 'seize,' 'secure,' 'receive,' but also (with *upa-*) *concipere* in the sense of the Greek ἐν γαστρὶ λαμβάνειν, with the substantive *lābha-s* 'obtaining,' 'gain' (cp. λῆμμα), so that Bopp 'Gl.,' Pott i¹. 259, Benf. ii. 139 and others group these words together. The transition from *bh* to β in the case of this root readily takes its place by the side of the instances mentioned above, in which the preceding nasal occasioned the loss of the breathing. For we meet this nasal, not merely in the pres. 532
λαμβ-άν-ω, where it may to a certain extent be regarded as an anticipation of the ν in the derivative syllable, but also in the Ion. fut. λάμψομαι and aor. pass. ἐ-λάμφ-θη-ν. It is not wanting in Skt. either, for there we find *a-lambh-a-nta* = ἐ-λαμβ-άν-οντο, and the causative *lambhá-jā-mi*, *lámbh-ja-s* 'attainable.' Now as we must frequently, e. g. in the termination of the weak aorist σα = *sam*, and of the acc. sing. and plur. α = *am*, ας = *ans*, recognize a Greek α as the representative of *am*, *an*, it is not too bold to refer λαβ in ἔ-λαβ-ον to λαμβ. In the same way on p. 312 we saw in μαθ the abbreviation of μανθ. Thus here too the nasal would give the occasion for the loss of breathing. Hence so far the expedients, to which we have had to resort, have been simple. But there are still some obscure points, especially the form λάζομαι, which is Homeric

and Ionic generally, and which is identical in usage with λαμβάνω, λαμβάνομαι, λελαβέσθαι, with its by-form λάζυμαι. ('Greek Verb' p. 122.) In these forms ζ takes the place of β, as in some words discussed above (p. 490), where β was shown to be the modification of a γ. It is the more surprising here, because there is absolutely no other case of contact between β and the aspirate. We shall come back to this question on p. 671. Another difficulty is presented by the initial letter. On the ground of the Hom. ἔ-λλαβ-ε and the common Greek εἵ-ληφ-α, εἵ-λημ-μαι Christ p. 83, and before him Benfey ii. 139, have maintained that λαβ and Skt. *labh* go back to an older *glabh*, and that this *glabh* is again identical with the rt. *grabh*, the meaning of which is nearly akin. To support this conjecture Benfey has quoted a form actually occurring, i. e. the Lith. *glob-óti* 'to embrace.' But there is no example of an assimilation of γλ to λλ. We must put ἔλλαβε by the side of forms like ἔλλιπε, discussed in the 'Greek Verb' p. 78, for which there is not the slightest trace of a double consonant at the beginning.—Sonne's notion ('Ztschr.' x. 128) of translating the bee-renowned Ὑβλα by 'Wablingen' 'honey-combs,' and thus connecting it with rt. ὑφ = *vabh* (No. 406 b), is at any rate ingenious.

From two different points of view ὄβριμο-ς 'powerful,' which occurs as early as Homer, has been suspected of containing a β which has arisen from an aspirate. It has been compared with Lat. *firmu-s*. But the *f* here has evidently been 'shifted' from *dh*, as we saw under No. 316, and this is of itself sufficient to deprive the comparison of all probability. On the other hand Böhtlingk and Roth in the 'Pet. Dict.' and Fick i³. 18, who adds the Goth. *ab-r-s* 'strong' connect it with Skt. *ambhṛṇá-s* 'powerful,' 'terrible,' the stem of which is *abhrá-m* 'cloud,' which has been compared with ὄμβρο-ς (p. 528). But, apart from other objections, the Greek word can hardly be
533 separated from βρί-θ-ω, βρι-αρό-ς, βρι-μό-ς (μέγας, χαλεπός), βρί-μη (ἀπειλή Hesych.) and other words discussed by Lobeck 'El.' i. 80, which point to a stem βρι, akin to βαρύ-ς (cp. above p. 475) and a prothetic ὀ. (Cp. Van. 217.) We need attach no importance to the form ὄμβριμος, which is only found in late MSS. of the Iliad (Hoffmann 'Iliad xxi. and

xxii.' p. 121). — There are also various objections to the conjecture of Kuhn ('Ztschr.' iv. 114) that *ὄλβο-ς* may be traced back to *ὀλφ* (*ἀλφ*). I have connected the word with *οὖλε* (No. 555).

5. Softening.

By softening we mean the sinking down of an original tenuis into a medial. The justification of this term, and the conditions under which the phenomenon appears, have been discussed on p. 444. Generally speaking the tenuis rarely sinks into a medial in Greek, and hardly ever when initial; in the middle of a word this is only the case between two vowels, and in immediate connexion with fricatives, hence in the neighbourhood of sounds to which the medial, in consequence of its capacity for 'sonancy' comes nearer than the tenuis. The case is also very different with the various organs. The guttural tenuis, which we considered on pp. 444 f. to be the consonant requiring the most force of articulation, undergoes this softening the most frequently, the dental the most rarely; between the two stands the labial organ.

In the following words we may with certainty regard the *γ* as softened from *κ*:

ἀ-μολγ-ό-ς 'darkness,' only in Homer (*νυκτὸς ἀμολγῷ*), which has been foolishly compared with *ἀμέλγειν*. It belongs to a rt. *μαρκ*, *μρακ*, Mod. Gr. *μουρκίζει* 'it grows dark.' — Cp. p. 568.

ἀρήγ-ω 'defend,' 'help,' with *ἀρωγ-ή*, *ἀρωγ-ό-ς* we placed under No. 7. All the meanings of the rt. ἀρκ, especially those occurring in *αὐτ-άρκ-ης*, *ποδ-άρκ-ης*, *ἄρκ-ιο-ς*, recur in *ἀρήγω*, so that we may with confidence venture to assume a form *ἀρακ*, expanded by a subsidiary vowel, from which came *ἀρήγ-ω*. The soft guttural appears only between two vowels. We meet a vowel of the same nature also in the cognate *ἀλ-ε-ξ* No. 581. The objection raised against this view, that a vowel of such an origin cannot be lengthened, breaks down, when we consider *σκ-η-νίπτω* = *σκνίπτω*, *σκάρ-ῑ-φος* and *σκάρφος*, *ἀρ-η-νο-βοσκό-ς* and st. *ϝαρν*, forms which have to be treated on p. 728 ff.

534 ἅρπ-α-ξ corresponds so clearly to the Lat. *rap-a-x*, that no one will think it too bold to assume a Greek stem ἁρπ-α-κ corresponding to the Lat. *rap-ā-c*. Further details under No. 331.

διαθηγή, as Democritus of Abdera is asserted to have said for διαθηκή, seems, after what Bernhardy ad Suidam s. v. ῥυσμός, and L. Dindorf in Steph. Thes. s. v. διαθηγή have written on the question, to be only a false reading for διαθιγή (rt. θιϝ), as I. Bekker now reads in Suidas. This instance is therefore in any case very doubtful.

κραυγ-ή 'cry' = Skt. *krōç-a-s* 'cry' from the rt. *kruç* (from *kruk*), with κραύγ-α-σο-ς 'crier,' κραυγάζω, κραυγανῶμαι ('Greek Verb' p. 183, 224). Lottner 'Ztschr.' xi. 185 adds Goth. *hruk-jan* 'to crow' (cp. κρώζειν *crocitare*), in spite of the want of shifting of the second *k*. Imitative words have many peculiarities. Fick i³. 524, 540 connects κράζω with κρέκειν, which denotes the slighter sound of chirping or making to whir, and ChSl. *krak-a-ti* 'to crow,' but κραυγή with rt. *kruç*. It is certain that the Greeks regarded κραυγή as the verbal noun to κράζειν.

κρίζω, κέκριγα 'squeak,' 'rattle' in the Attic writers, in Homer κρίκε 'cracked' with the tenuis retained. 'Greek Verb' p. 224, ChSl. *krikŭ* 'cry.' Fick i³. 539. Vaníček p. 141 has collected all imitative words of this type.

λάλαγ-ες 'chatterers,' as a certain kind of frogs were called according to Hesych., with λαλαγ-ή, λαλαγ-έω are compared by Budenz 'Das Suffix ΚΟΣ' p. 72, probably correctly, with λάβραξ, γαύραξ and other words with the suffix -ακ, which in many cases has plainly something of a diminutive force. λάλαξ is therefore a kind of diminutive to λάλο-ς and λαλ is to be given as the root. Cp. Van. 772.

In μίσγ-ω with its rt. μιϝ ἐ-μίγ-η-ν, μίγ-α the γ was seen under No. 474 to be a softening from κ, which has been retained even in Latin, the language most akin. Probably the softening came in first in forms like μιγ-ῆ-ναι, μίγ-α, μιγ-άς, μίγ-νυ-μι, between vowels, and before the nasal.

ὀ-λίγ-ο-ς we connected under No. 553 with Skt. *liç*, according to which *liḳ* was to be regarded as the root. In λίσσον· ἔλασσον we thought a trace of the κ was to be discerned.

ὄρτυξ (st. *ὀρτυγ*) under No. 507 was connected with Skt. *vart-ikā*. In this case the Greek grammarians bear witness to the by-form with *κ*.

πήγ-νυ-μι (No. 343) has indeed in Greek, in all immediately related forms, *παϝ* as its root, but the Skt. *paç*, and still more plainly the Lat. *pac-i-sc-o-r* by the side of *pang-o*, point to *paḳ*. From this harder form are explained the aspirate in *πάχ-νη* and *παχύ-ς* (cp. p. 521) and the *σσ* of *πάσσαλο-ς*; that the latter belongs to this root is established by Lat. *pā-lu-s* (= *pag-lu-s*), 535
pax-illu-s (Schwabe 'De deminutivis' p. 97). The Lat. *pessulu-s* on the other hand is the Italian borrowed form of *πάσσαλο-ς*.

In *πλεγ-νύ-μι*, the late by-form of *πλέκω* (No. 103 'Greek Verb' p. 111) *ν* is still more plainly the occasion of the softening.

In *ῥήγ-νυμι* rt. *ϝρακ* we shall find below the same change.

σῖγ-ή we traced back (No. 572) to a rt. *svik*.

στεργάνο-ς we find quoted in Hesych. with the meaning *κοπρών*. The identity of the stem with that of the Lat. *sterc-us* is evident. Cp. No. 110.

We saw under No. 234 that *τέγγ-ω* 'wet,' quite a parallel to Lat. *ting-o*, probably goes back to a form with *k*.

τήγ-ανο-ν 'melting pot,' clearly belongs to *τήκ-ω* (No. 231).

We may place here also the suffixes *-ιγ* (*μαστι-γ* as well as *μαστι*), *-ιγγ*, *-υγγ*, e. g. in *φῦσιγξ*, *φόρμιγξ*, *λᾶϊγξ*, *φάρυγξ*, *σπινθάρυγξ*; the connexion of these with the suffix *-κ* and *-κο* is placed beyond doubt, after what Budenz ('Des Suffix *-κος*') and Schwabe ('De deminutivis' p. 49 sqq.) have collected. In the same way the suffix *-υγα* in *μαρ-μαρ-υγή* with **μορμολ-υκ* (*μορμολύκειον*, *μορμολύττομαι*), though the latter has a different stem, corresponds to the Skt. *-ūka-s*. Ernst Kuhn 'Ztschr.' xx. 80.

To these examples of a *γ*, not initial, softened from *κ*, some others will be added on p. 674, inasmuch as this weakening will be established for those verbal-stems in *γ*, which have in the present-stem *σσ* (*ττ*).

In all these cases, therefore, it is a *κ*, not at the beginning of a word, but in the majority of instances between two vowels and accompanied by a nasal, which is softened to *γ*. It would be hard to give a single certain instance of the

softening of an initial κ, with the exception of some stems with κν and κρ, to which we return on p. 705. The identity of meaning makes it probable that κνέφ-ας, γνόφ-ο-ς, δνόφ-ο-ς are to be placed together in this order (Lobeck 'Elem.' i. 95). I therefore regard γ in γνόφο-ς, which is described as Aeolic (Ahrens 'Aeol.' 73), as softened from κ, δ as arising by the influence of the ν (cp. ἀδνόν· ἀγνόν Κρῆτες Hesych.). Döderlein, though I do not agree with his analysis of these forms, is certainly right in placing here also κνώψ· τυφλός (Suidas), in which we should thus have one more witness in favour of κ ('Gloss.' 2246). — In the same way we may regard κνέφαλον
536 or κνέφαλλον 'cushion,' which is recorded as well as the Aeolic γνόφαλλον, as the older form, and κνάφ-αλο-ν 'flock-wool,' which probably belongs to κνάπτω 'full,' κναφεύς, etc. as the stem-word. Fick i³. 807 traces it to a rt. *skap* 'shave,' 'scrape.' The stem *kambala* [Skt. subst. 'wool'] would then be related to κναφαλο much as ὀμφαλο to OHG. *nabulo* (No. 403). Still the root remains doubtful. Others also of the numerous forms from a like stem show here and there the softer γν. — To these must be added thirdly the Epic γνάμπτω 'bend,' to which we can ascribe the same relation to the form recorded by Hesych. κνάμπτει, κάμπτει. — Finally there is γράστις, a late by-form for the Attic κράστις 'grass,' 'fodder.'

The dental medial appears much more rarely in the place of a tenuis. The instances which can be proved are the following:

δάπι-ς is used by Aristophanes and Xenophon and quoted by Athenaeus in the place of the older forms in τ τάπη(τ)-ς, τάπι-ς (Steph. Thes. s. vv.), which occur in Homer.

In the middle of a word δ takes the place of τ in Ἄρτεμι-ς Ἀρτέμιδ-ος, while the Dorians (Ahrens 240) said Ἀρτάμιτος and derived from this the name of the month Ἀρταμίτιος and of the promontory Ἀρταμίτιον. The origin of the name is still obscure: [Preller i³. 237 accepts the derivation from ἀρτεμής *E* 515 *ν* 43, which is as old as Plato 'Crat.' 406 b; Pott i¹. 221 derives it from ἀέρα τέμνουσα!] We find also Θέμι-ς Θέμιτ-ος in Pindar, as against Θέμι-ο-ς, Θέμιδ-ος, so that the δ here too seems to have originated in τ. Still the case is different here because of the appellative θέμι-ς (No. 309)

with its plural *θέμιστ-ες*, which occurs as early as Homer: the stem of this is probably shortened from *θεμιστι*, and is to be derived from the stem of the derivative verb *θεμίζω* (Leo Meyer ii. 331). In this case it is not a question of a phonetic transition, but of analogies of inflexion.

The two ordinals *ἕβδομο-ς* and *ὄγδοο-ς*, with their by-forms *ἑβδόματος*, *ὀγδόατος* are probably the only genuine Greek words, in which the favorite groups *πτ*, *κτ* sank down into *βδ*, *γδ*. The occasion lay, as I conjecture in agreement with Leo Meyer 'Ztschr.' vi. 292, in the influence of the *μ* and of the *ο*, which phonetically approximates closely to a *F*. I regard the *ο* of *ἕβδομο-ς* as an irrational vowel, to use the terminology of Corssen[1]. Cp. Dor. *ἑβδεμήκοντα*. Thus the *μ*, though separated by it from the stem *ἑπτ*, might still exercise a softening influence upon the *τ*, and this letter, as soon as it sank into *δ*, necessarily assimilated the *π* to itself. It is true that we can only prove from Greek the softening influence of the *μ* upon an immediately preceding *κ* or *χ* (*πέπλεγ-μαι*, *βέβρεγ-μαι*). But we have the analogy of the Slavonic *sed-mъ* (= Lith. *septynì*), where the vowel disap- 537
peared entirely. The *ο* of *ὄγδοο-ς* too, though it takes the place of *ā* in the Lat. *octāvu-s*, was phonetically an irrational vowel, closely approximating to the spirant *F*, as is seen plainly from *η* 261, *ξ* 287, where *ὄγδοον* is to be scanned as disyllabic. I. Bekker[2] indeed — contrary to the traditional authority — instead of *ἀλλ' ὅτε δὴ ὄγδοόν μοι ἐπιπλόμενον ἔτος ἦλθεν* reads *ἀλλ' ὅτε δὴ ὀγδόατον*. This view closely approximates to that developed by Ascoli 'Stud.' ix. 358, only that Ascoli actually presupposes *septmo-s*, *okt-vo-s*. As no one will deny that the ordinal belongs to the corresponding cardinal numeral, this is an evident instance of weakening, which we must describe as such and attempt to explain, even if only by a weak analogy. The process remains unique, even after we have recognized the reason for

[1] [I. e. a vowel which does not exactly correspond in its duration either to a long vowel or to a short one. Such a vowel may either exceed or fall short of the ordinary length of a long or a short vowel. Here is meant a vowel which has not yet attained to the full length of an ordinary short vowel. Cp. Corssen ii². p. 607.]

it, for in ἐρετ-μό-ς the τ remains unchanged before μ, while *τέτϝαρες became τέσσαρες. The much-used numerals have in general many peculiarities. (Cp. my paper 'On the range of the phonetic laws' Berichte der phil. hist. Cl. d. k. s. Ges. d. W. 1870 p. 33 f.).

νέποδες we regarded under No. 342 as equivalent to the Lat. *nepōtes*, but we found the occasion for the weakening of the *t* in the resemblance to πόδ-ες· νέποτες would be a form quite without any analogy in Greek.

παρδακό-ς 'damp' (Aristoph. 'Pax' 1148), with its Ionic by-form πορδακό-ς is usually connected with the Laconian πάρταξον (M.S. πάρταζον)· ὕγρανον, quoted by Hesych.; in that case the τ of the latter must be regarded as the more primitive. The origin is obscure, the words rare. Fick. i³. 670 compares πλάδ-ος 'wetness,' to which belong πλαδάω, πλαδαρός with Lat. *prā-tu-m*. The origin of these rare words is very obscure. [Paley notes: 'it is probable that we have here words purposely taken from the language of the Attic farmer.' Schol. παρδακόν· δίυγρον . οὕτω γὰρ καὶ Ἀρχίλοχος καὶ Σιμωνίδης.]

For ποδαπό-ς we find in a somewhat various usage, little differing from ποῖος, ποταπό-ς in writers like Dionysius of Halicarnassus, Josephus, and Philo; but their authority is not sufficient to establish the harder form as the older (Phryn. p. 56). The explanation of the pronominal form from an ablatival ποτ- and ἀπό (Pott ii¹. 265) is in any case extremely uncertain.

σμάραγδο-ς corresponds in meaning to the Skt. *mara-kata-m* and *marakta-m* (Bopp 'Gl.'). But the Greek word is certainly borrowed, and the Indian word is also without any affinities in Skt. (Pott ii¹. 195, Benf. i. 533). And borrowed words have ways of their own.

The variation in the later vulgar language between τ and δ is treated by Lobeck 'Paralipomena' 149.

More frequently π and β stand face to face. Here the following words come under consideration:

ἀβλόπες (probably more correctly ἀβλοπές) was said by the Cretans, according to Hesych., for ἀβλαβές (Ahr. 'Dor.' 84). Although the Cretans sometimes instead of a genuine

medial really used the tenuis, or at any rate used a harder 538
sound, which seemed to the rest of the Greeks a tenuis (*κλαυκιόων* = *γλαυκιόων*, *κλάγος* = *γλάγος*, cp. Mor. Schmidt 'Ztschr.' xii. 216), yet here the *π* might really be the older sound, and the *β* of *βλάβ-ε-ται* (Hom.), *βλαβ-ή*, etc. might be softened from *π*. As *βλ* according to Greek phonetic laws takes the place of an initial *μλ* (rt. μολ *βλώ-σκ-ω*), we may perhaps trace βλα-π back to μλα-π, and regard this μλα-π as an expansion, determined by *π*, of the rt. μαλ, discussed under No. 457, which appears in this form in *μαλα-κό-ς*, *ἀ-μαλ-ό-ς*, whence *ἀμαλ-άπ-τω* (explained by *κρύπτω*) in Sophocles 'Frag.' 413 Dind. and Lycophon v. 34 (Van. 706), and with a transposed vowel in *βλά-ξ*. The Skt. *mlā* (*mlāi*), already compared there, with the meaning 'to become soft,' 'flaccid,' formed a causative *mlā-pájā-mi* 'to make soft.' Similarly Benfey i. 524. Homeric phrases like *βλάβεται δέ τε γούνατ' ἰόντι* (*T* 166, *ν* 34), *βλάψε δέ οἱ φίλα γούνατα* (*H* 271), *Διόθεν βλαφθέντα βέλεμνα* (*O* 489) favour this derivation more than that assumed by Döderlein ('Gloss.' 323), from rt. βαλ *βάλλειν*. Benfey ('Or. und Occ.' i. 574) and Bugge 'Stud.' iv. 325 compare Skt. *gla-p-ájā-mi* 'exhaust,' 'weaken,' 'suffer to go to ruin,' supposing that the organ of the initial consonant has been assimilated to that of the consonant in the middle. I still think it simpler to start from rt. *mla*. Otherwise Pott W. i. 594.

ἁβρό-ς is connected by Christ 'Lautl.' 100 with *ἁπ-α-λό-ς*. The meanings are indeed not identical, as *ἁπαλός* means rather 'tender,' 'soft,' *ἁβρός* 'luxurious,' but they approach each other very closely, and quite coincide in *ἁπαλὸν γελάσαι* [*ξ* 465] and *ἁβρὰ γελᾶν* [*ἁβρῶς γελᾶν* Anacreont. 41. 3], which can scarcely be distinguished. Fick i³. 492 deduces a rt. *abh*, akin to *ἀφ-ρό-ς* 'foam,' with which I connect ('Stud.' ii. 440) *νήφω* (cp. *νῆστις*) as the opposite of *eb-riu-s*. The meaning of the rt. *abh* must have been that of teeming fulness. If this conjecture is correct, we have here an instance not of softening, but of loss of aspiration.

Ἀμβρακία, the later form for *Ἀμπρακία*, evidently owes its *β* to the same weakening influence of the preceding *μ*, which at a later period of the language attacked every *π*, and

finally gave rise to the custom in modern Greek of writing *μπ* for the sound of our *β*.

ἴαμβο-ς stands in the same relation to *ἰάπ-τ-ω* 'throw' ('Greek Verb' p. 167). It can hardly be doubted that *ἴαμβο-ς* meant originally 'a cast,' then a verse cast at any one, 'a jeering verse.' Even Aristotle felt something of this primary meaning in the derived *ἰαμβίζειν*, when he says Poet. 4,
539 *ἰαμβεῖον καλεῖται, ὅτι ἐν τῷ μέτρῳ τούτῳ ἰάμβιζον ἀλλήλους.* By nasalization *ἰαβ* became *ἰαμβ*, just as *κορυφ* (*κορυφή*) became *κόρυμβ-ο-ς* (cp. p. 527).

St. *καλυβ καλύβ-η* 'hut,' *καλύπτω* 'cover up,' has quite the appearance of an expansion of the rt. καλ, mentioned under No. 30 and on p. 529 and the Lat. *clup-eu-s* makes it probable that originally *p* stood here instead of *β*. (Cp. Pott W. i. 680).

καρβατίνη· ὑπόδημα (Hesych.) is certainly rightly considered a weaker and dialectic form of *καρπάτινο-ς* 'leathern,' the neuter of which word is quoted with the same meaning.

κεβάλη and *κέβλη* were mentioned above p. 511. There is a remarkable by-form *κύβη*, proved by 'E.M.' 543, 22, preserved in *κυβιστάω* (*εἰς κεφαλὴν πηδῶ*), *κυβιστητήρ*, from a lost *κυβίζω*. This form too has by-forms with *π*: *κύπρος· κεφάλαιον ἀριθμοῦ*, from which M. Schmidt ad Hesych. derives *cifra*[1], 'cipher,' and with *φ*: *κύφερον ἢ κυφὴν κεφαλὴν Κρῆτες* (cp. Lobeck 'Proll.' 91). The forms with *φ* Fick i³. 537 compares with Skt. *ka-kúbh* (*f.*) 'top,' 'point.'

The variation between the names for the 'ape' *κῆπο-ς* or *κῆβο-ς* has little importance as the name is that of a foreign animal (A. Müller in Bezzenb. 'Beitr.' i. 280).

κε-κλεβώ-ς occurs on the inscription of Andania l. 79 (ed. Sauppe) for the common *κε-κλοφ-ώς* from the rt. κλεπ. *ἐγγραβώς· ἐγγράφας* in Hesych. (cp. 'Greek Verb' p. 408). Perhaps we are to assume already for this *β* the pronunciation *v*, and for *φ* about this time here and there that of *f*, so that here the hard spirant is replaced by the soft.

κομβακεύεται κόμπους λέγει (Hesych.) owes its *β* evidently

[1] [Better derived from Arabic *çifr* 'empty,' 'nought,' *çafira* 'to be empty.' Cp. Brachet s. v. *chiffre*, Diez s. v. *cifra*.]

to the nasal (Leo Meyer i. 41), and it is the same with *κρέμβ-αλο-ν* 'clapper,' whence *κρεμβαλιάζω*, *κρεμβαλιαστύς*, compared with *crepare*, *crepundiae* (Walter 'Ztschr.' xii. 379, Pott ii². 683).

λεβ-ηρί-ς 'hide,' 'skin,' and *λοβ-ό-ς* 'pod,' 'shell,' whence *ἔλλοβα* 'pulse,' cannot be separated from *λέπ-ειν* 'peel,' *λέπ-ος* 'scale,' 'rind,' 'pod,' and the more or less exactly equivalent forms *λέπ-υρο-ν*, *λοπ-ό-ς*, *λεπ-ί-ς*. We may add Lat. *lib-er* 'bast' (inner bark), 'book' (Hehn³ 521). The meanings 'lobe of the ear' or 'of the liver,' which *λοβ-ό-ς* also has, must thus be regarded as secondary. The lobe of the ear was compared to the drooping pod of pulse, and named from this.

στίλβ-ω 'glitter,' 'shimmer,' when compared with the adj. *στιλπ-νό-ς*, and the proper name *Στίλπων* must be regarded as the softened form. The rt. στιλπ has indeed not yet found any exact correlate in the cognate languages, for Fick's conjectures i³. 600 are very uncertain, but Benfey's connexion of it with *στεροπή*, *ἀστράπτω* (i. 662), accepted by Walter 'Ztschr.' xii. 540.
379, has much probability, if we consider the complete similarity of meaning.

στοιβ-ή has been discussed under No. 229 in its relation to *στύπ-ο-ς*, Lat. *stup-a*, *stip-a*. We shall be obliged to assume for Greek too a rt. στι.

ὕβρι-ς was connected by Schneider in his Lexicon with *ὑπέρ* (No. 392), comparing *superbia*. Pott W. i. 414 detects in the *ι* the rt. ἰ 'go,' so that *ὕβρ-ι-ς* would mean 'transgression,' *ὑπερβασία*. Attractive as this sounds, it still has its difficulties. In a compound of this kind, we could hardly expect the bare root; at least I do not know any Greek noun-form at all analogous. And besides, it is perhaps not merely an accident that the rt. *i* is not compounded with this preposition either in Greek or in Latin. Hence it seems to me more probable, that the *ι* of *ὕβρ-ι-ς* is merely derivative, like the *u* (*υ*) of the Latin adjective *super-u-s*, which is extant in Greek (Pott i². 678) only in a special technical usage in *ὕπερο-ν* or *ὕπερο-ς* 'pestle,' and *ὑπέρα* 'upper rope,' and in the derived '*Υπερ-ίων* (Düntzer 'Ztschr.' xii. 7). It is worth noticing that *ὕβρι-ς* as a masculine in Hesiod *Ἔργα* 190 (*κακῶν ῥεκτῆρα καὶ ὕβριν ἀνέρα*) appears as a nomen agentis

(cp. Lobeck 'Paralipp.' 41). G. Hermann actually assumes a neuter to it in Aeschylus 'Suppl.' 785 (*γένος γὰρ Αἰγύπτειον ὕβρι*). The word is singular in any case. Ludw. Lange in the 'Ztschr. f. d. österr. Gymn.' 1863 p. 301 prefers to regard *ὕβρι-ς* not as a derivative from *ὑπέρ*, but as a parallel form, also derived from that *ὑρα*, which under No. 392 we learnt to recognize as the stem-form of *ὑπό* and *ὑπέρ*. We should then have to divide *ὕπ-ερο-ς* and to compare *ὕβ-ρι-ς*, so far as the suffix goes, with *ἴδ-ρι-ς*. It is true that this analogy could not be used in the case of the substantive. Therefore, even if these views are accepted, there are difficulties remaining with respect to the formation of the word. In any case *ἀβρό-ς* should be compared for the *βρ*. Bezzenberger's comparison ('Beitr.' ii. 155) of *ὕβρι-ς* with Skt. *ug-rá-s* 'violent,' arouses doubts on the score of form and of meaning alike.

All the other instances, in which the same phonetic change has been assumed, are at least very doubtful. It is improbable that *βό-σκ-ω* corresponds to the Lat. *pa-sc-o*, as among others Leo Meyer, 'Vergl. Gr.' i. 41, and Zacher 'De nominibus in *αιος*' p. 64 (quite otherwise Fick ii³. 229), assume, if only because no other example of an initial *β* for *π* before a vowel can be
541 established. It is only of the Delphic dialect that we know (Ahrens 'Dor.' 83) that this softening occurred in it, and there is credible authority for it only in the case of extremely few words. Among them *Βύσιος* (rt. πυθ No. 328) may be explained otherwise, *βατεῖν* possibly agrees with *πατεῖν* only in meaning, while it belongs etymologically to rt. βα. *βικρός* for *πικρός* may be allowed to stand. Still we owe the notice to the not very trustworthy Plutarch, who wished to explain *Βύσιος*. Zacher adds the Homeric *ἠ-βαιό-ς*, later *βαιό-ς*, tracing it back to *βαϝ-jo-ς* and connecting it with Goth. *favai* 'few:' but I cannot approve of this, all the less because the same stem appears in the form *παυ* (No. 351). Pott W. i. 199 agrees in this opinion. — The softening in *βρα-βεύ-ς* 'umpire' would be less surprising on account of the *ρ*. This word, in Greek quite isolated, is by Benfey ii. 106 referred to *pra-bhū* 'praesse;' but this does not explain either the *β* or the *α*, so surprising beside *πρό*, or the special meaning of the word, which Döderlein ('Reden und Aufsätze' ii. 145) ascribes

to the rt. μερ (*μείρο-μαι* No. 467). This is satisfactory enough as regards the meaning, and the initial letter, but whence comes the second *β*? Are we to suppose this, as in rt. βλαβ (p. 538), softened from *π*, and to assume a st. *μρα-π* with the meaning 'apportion to?' In either case the initial *β* might have favoured the softening. This remains, however, pure conjecture. — For *σέβω*, which Benfey 'Ztschr.' vii. 56 has attempted to connect with the Skt. rt. *sap* 'attach oneself to,' 'honour,' I may refer to what was said on p. 481. It is not even consistent with the meaning: *σέβομαι*, *σέβας* (*σέβας μ' ἔχει εἰσορόωντα γ* 123), *εὐσεβής*, *σεβίζω* we have the fundamental notion of sacred, astonished or retiring awe, just the opposite, therefore, of the notion of 'attaching oneself to,' suggested by Benfey as a link between the two.

According to these investigations of ours, softening has altogether a very limited range. Even including foreign words, isolated dialectic forms and suffixes, we only obtained 26 instances of *γ* for *κ*, 7 of *δ* for *τ*, 13 of *β* for *π*, 46 in all, an extremely small number in comparison with the frequency of the instances in which the hard explosive has been faithfully retained, the number of which above (p. 408) reached 319. It is evident that this result by no means confirms the attempts, which have been made in various quarters, to prove that Greek suffixes in *δ* are modifications of those in *τ* which are so widely retained, or to explain Graeco-Italic pronominal forms in *d* from an older *t*.

In earlier editions of this book I thought I could attach to the weakening of the tenuis to the medial a phenomenon, for 542
which I regarded only two instances as demonstrated, the sinking down of an original *bh* to the spirant *υ* (*ϝ*). But the rarity of the process was enough of itself to awaken mistrust. There is also the consideration that, as we shall show below, the sound of the *ϝ* was probably tolerably far removed from the sound of the *bh* hardened among the Greeks to *φ*. The two roots meant here are rt. *ϝαρ* *ἄγνυμι* 'break,' *ἀγή* 'breach,' 'breakers,' *ἀ-αγ-ής* 'unbreakable,' previously quoted by me under No. 654, and rt. *ϝραρ* *ῥήγ-νυ-μι* 'tear apart,' 'break apart,' *ῥῆγ-μα* 'rent,' *ῥηγ-μίν* 'breakers,' *διαρρώξ* 'broken

through,' *ῥωγαλέο-ς* 'torn apart' (previously No. 655). To the varied evidence for the *ϝ* in both groups of words we shall return. The rt. *ϝαρ* appeared to correspond to Skt. *bhañǵ* (*bhanáǵ-mi*) 'break,' 'burst apart,' *bhaṅgi-s* 'outburst,' 'wave,' Lith. *bang-à* 'wave,' *Bang-pu-tì-s* 'wave-blower' (a sea-god), OIr. *com-boing* 'confringit,' but for these non-Greek words we can only deduce a rt. *bhag* (Fick i³. 689). The Greek *ϝαγ* remains isolated. It is true that Fick i³. 761 tries to connect the latter with Lat. *vag-u-s*, Lith. *vingė* 'curving,' 'bending' = OHG. *wenke* and *winchan*. But I do not find here any striking agreement in meaning. — But the case is otherwise with rt. *ϝραρ*. If we surrender, attractive as it is, the comparison with Lat. *frango*, Goth. *brikan*, verbs not represented, as it appears, in Greek, still *ϝραγ* finds an entirely corresponding parallel in the rt. *vrak* (Fick i³. 773) and its by-form *vlak*. The hard *k* has been retained in *ῥάκ-ος* (beside *λάκος* No. 86), Aeol. *βράκ-ος* 'rag,' and in *βρακ-ίαι· οἱ τραχεῖς τόποι* (Lobeck 'El.' i. 134), i.e. 'broken,' 'torn ground,' but shifted by aspiration in *ῥαχ-ία* (Ion. *ῥηχ-ίη*) 'breakers,' while *ῥήγ-νῡ-μι* goes along with the softened forms mentioned on p. 533 ff. (e. g. *πλήγ-νυ-μι*). The notion 'tear,' which attaches to the Greek words, recurs in *(v)lac-er* (cp. *ῥωγαλέος*), *(v)lac-ini-a* and *lac-er-na*, which closely approach *λάκος* and *ῥάκος* (Vaníček p. 908). If Fick is right in adding *εὐλάκα* 'plough' (for *ἐ-ϝλάκ-α*), which according to Hesychius was Laconian, the Greeks too were not without a by-form in *l*. Hence we can make good the connexion with the rt. *ϝρακ* by assuming the usual softening, and on the other side aspiration.

543 ## B. Sporadic Changes of the Nasals.

The nasals are so closely akin to each other, that there is nothing surprising in the change of one nasal into that of another organ. The most frequent instance is when we see the dental nasal passing into the guttural or labial under the influence of following sounds: *ἔγ-κειμαι ἔμ-πορος*: this is, as every one knows, extremely common in inscriptions, where two words come together, and not uncommon in MSS. (Giese 'Aeol. Dial.' pp. 84, 87, Lobeck 'ad Ajac.' vv. 786, 836,

'Studien' x. 211 ff.): ΕΜΠΡΟΜΑΧΟΙϹ, ΕΓΚΙΒΩΤΙΩΙ, ἐμμέσῳ, ἀμβωμοῖσι. Hence, as Giese u. s. very justly says, all final nasals coalesce into a single one. ν represents etymologically not merely Indo-Germ. *n*, but also *m*, and it is purely accidental if, in consequence of an assimilating influence, the original labial nasal, e. g. in ΤΕΜ ΜΥϹΙΑΝ, ΤΩΜ ΜΙϹΘΩϹΕΩΝ phonetically reappears. From the Greek standpoint ν still remains the prevalent sound. The analogies of cognate languages were adduced above p. 448. It is somewhat remarkable that the dental nasal occasionally makes its way from the end of a word into the word itself. This is undoubtedly the case with the Doric pronominal accusative νίν, as compared with the Epic μίν. So far as I know, Döderlein ('Reden u. Aufsätze' ii. 144) was the first to suggest the explanation, that this accusative had originated in ἰμ-ἰμ, and was thus equivalent to the OLat. *em-em* (eundem), quoted in Paulus 'Epit.' p. 79. As a reduplicated accusative (cp. *se-se*) of the wide-spread pronominal stem *i* = Lat. *i* (*i-s*, *i-d*), μίν would thus correspond to a German *ihn - ihn* (*him - him*). This explanation seems to me to be self-evident. We have still in the Epic form μ-ίν the old labial, in the Doric ν-ίν already the later dental nasal. To be sure the reduplication would not have its intensive force here, any more than in the Lat. *sese*. But this might easily be lost in the course of time. Pronominal stems easily become attached to each other, as is shown by *o-ὗ-το-ς*, *αὐ-τό-ς*, *hi-ce*, without the meaning of the compound stem being very different, in the usage known to us, from that of the simple stem. We may assume the same thing also with regard to reduplication. The pronominal stems *ma* and *na*, to which some have wished to refer μίν and νίν (Bopp 'Vergl. Gr.' ii². 172, 177), are not used in any cognate language in a manner at all similar, except in composition[1]. In that case too we should have expected anything 544
rather than the *i*. With regard to the aphaeresis of the first *i* compare νέρθεν, νέρτεροι for ἔνερθεν, ἐνέρτεροι. — In the same way it cannot be denied with regard to ξύν (σύν)[2] and Ion.

[1] Compare however the *-n-* ('eum') infixed in Old Irish (Z². 330).

[2] Tycho Mommsen 'Developement of certain laws for the use of the Greek prepositions μετά, σύν and ἅμα in the Epic writers' Frankf. 1874,

ξῡνό-ς = *κοινό-ς* in their relation to the Lat. *cum* (*com-*, *con-*, *co-*), which is discussed thoroughly, with much from other languages thereto appertaining, by Pott ii[1]. 840–858, whatever we may think about the origin of the word, that the *m* of the Latin is the older, and the *ν* its representative, which made its way from the termination into the middle of *ξῡνό-ς*. As to the initial consonant, we may refer to Ahrens 'Ztschr.' iii. 164, where from Greek dialects the forms *κυμ-*, *κυν-* (*Κυν-ουρία* = *Confinium*) and Cyprian *κιν-* (*κιναύρου ψῦχος· τὸ ἅμα ἡμέρᾳ* Hesych.) are deduced with great probability. The notion that *ξύν* has anything to do with Skt. *sākám*, derived from *sa*, is thereby rendered extremely improbable. — It is much the same with the numeral stem *ἑν* discussed under No. 599, supposing that this is really akin to the *ἀ-* of *ἅ-παξ* and *ἅμα*, *ὁμο*. The *ν* may have first established itself in the much used neuter *ἕν*, and from this have extended further. — Of the same kind is the *ν* of the two noun-stems *χιον* (No. 194) and *χθον* (No. 183). The Lat. *hiem-s* and *χθαμαλό-ς* show conclusively that the stems originally ended in *m*. Accordingly I agree with Brugman 'Stud.' ix. 308 in thinking that the *ν* of the nominative passed from thence to the remaining cases. It is in favour of this that no stems in Greek end in *μ* while those in *ν* are countless. Hence it was easy for the analogy of *δαίμων*, *δαίμονος*, etc. to assimilate to itself the older *χιών* **χιομος*.

But frequent as is the change from *m* to *n* when final, and as a result of this, in certain cases within a word, we cannot without further inquiry assume that it is so at the beginning or in the middle of a word. In the Romance languages, it is true, the interchange between *m* and *n*, referred to on p. 448, is recognized, and Slavonic instances, like the Sloven. *Miklošʼ* = Nicolaus, must be taken into consideration. The connexion of the plural and dual pronominal st. *na* (Graeco-Ital. *nō*, whence *νῶ-ϊ*, *nō-s*) with the singular *ma* (Graeco-Ital. *me*) was until recently regarded as quite as undoubted as that of the Spanish *mueso* with the equivalent

p. 40, calls attention to the length of *σύν* in Theocritus xxviii. 25 *δώρῳ σὺν ὀλίγῳ*, and perhaps in Pindar 'Isthm.' vii. 46 *φαντὶ γὰρ ξὺν* (Hermann *ξύν'*) *ἀλέγειν*; and this certainly tends to link *ξύν* with the Ion. *ξῡνό-ς*.

Latin *noster*. Now strong resistance is offered to it.—Bopp 545
in the 'Gloss.' (cp. Pott W. ii. 2, 172) connected Lat. *ten-e-brae* with Skt. *tám-as* 'darkness.' The rt. *tam* is in use in Sanskrit also as a verb, with the meaning 'choke,' 'stagnate' ('Pet. Dict.'), and thus darkness is regarded as that which checks the movements and actions of men [cp. *nox* Nos. 93, 94]. From Sanskrit itself we have also *tamas-á-s* 'darkish,' *tamas-á-m*, *tam-is-ra-m* 'darkness,' 'gloom,' and further Zd. *tem-aṅh* (n.) 'darkness,' *tem-aṅha* 'dark,' Ir. *teime*, *temel* 'obscuritas' ('Corm Gl.' p. 28, Z². 768), Lith. *tam-sà* 'darkness,' *tam-s-ù-s* 'obscure,' ChSl. *tĭm-a* 'tenebrae,' OS. *thim* 'obscurus,' OHG. *dem-ar* 'crepusculum' [German *Dämmer* and (more common now) *Dämmerung* 'twilight:' Old Frisian and Old and Mod. Eng. *dim*, according to Grimm; cp. ONorse *dinnur*]. Corssen ('Beitr.' 263) connects *ten-e-brae* (cp. *lat-e-bra*, *vert-e-bra*, *ter-e-bra*) with *tenere*. But it cannot be proved that either *tenere* or the rt. *tan* meant 'cover,' as Corssen assumes, or that *tenebrae* meant originally 'confinement,' 'prison.' The fact that the part. *ta-tá-s* can be translated, according to the 'Pet. Dict.' in certain applications by 'covered' by no means proves this, as Corssen 'Ital. Sprachk.' 290 assumes. Hence an adequate link of signification is wanting. On the other hand I agree with Lange ('Ztschr. f. österr. Gymn.' 1863 p. 302), that the rt. *tam* is retained with its *m* unchanged in *tem-ere*, which will thus mean something like 'blindly.' An entirely satisfactory explanation of the *n* in *tenebrae* is given by Brugman 'Stud.' ix. 393, where, employing the Italian change of *s* into *f* and within a Latin word into *b*, discovered by Bugge, he establishes **tene-s-ra* (Lith. *tamsra-s*) **ten-f-ra* as the primitive form.

The following are Greek roots and stems, in which *ν* has been conjectured, not altogether without probability, to have come from *μ*:

βαίν-ω, i. e. *βαν-ιω* = *ven-i-o*, Skt. *gam*, Goth. *qam* p. 473. With *βαν* agrees the Umbrian and Oscan *ben*. It is not impossible that from the rt. *ga* there came by two different determinatives *ga-m*, and *ga-n* (so Ascoli 'Lautl.' 101).

ἡν-ία (plur.), later *ἡ ἡνία*, whence *ἡνί-οχο-ς*, is assigned by Benfey ii. 202 to the Skt. rt. *jam* 'hold,' 'rein in,' whence the

substantives *jám-a-s* 'rein,' 'guide,' *jan-tá* (nom.) 'driver.' The meaning causes no difficulty. Kuhn 'Ztschr.' ii. 320, and Schweizer iii. 356 also agree. As to the formation of the word, the Homeric form *ἡν-ίο-ν* falls under the analogy of diminutives such as *ζων-ίο-ν*, *παιδ-ίο-ν*, and therefore presumes a nominal st. *ἡνο* or *ἡνα*, the *η* of which may be explained as in *λήθ-η* by addition of sound. We must not overlook the fact, that the rt. *jam* meets us with another initial letter in the word *ζημία*, which we shall have to discuss below (p. 625), so that I have no great confidence here in the transition from *μ* to *ν*[1].

546 That *νύσσω* is akin to *ἀμύσσω* is regarded by Lobeck 'El.' i. 27 as certain. The former means rather 'stab,' the latter 'scratch,' two notions which are united in that of tearing open. The derivatives on either side are not numerous: *νύξις*, *νυγμός*, *νύγμα*, *νύσσα* —*ἄμυξις*, *ἀμυχή*. The gloss of Hesych. *ἀμυκαλαί· αἱ ἀκίδες τῶν βελῶν παρὰ τὸ ἀμύσσειν* is worth noticing, inasmuch as it proves that *κ* is the letter of the root, and establishes the identity of the st. *ἀμυκ* with the Latin *muc-ro(n)*. Still I should not like now to defend this comparison, especially as Fick i³. 645 refers *νύσσω* to a root akin to *ὄνυξ*, which we mentioned under No. 447. The interchange of *angh* and *nagh* is discussed there, the *υ* of *νύσσω* is akin to that of *ὄνυξ*, while OHG. *nagan*, ModGerm. *nagen* (cp. also ChSl. *nožĭ* 'knife') preserves the *a*.

[1] My former comparison of the rt. *θαν* 'die' with the Skt. rt. *dham* (*dhmā*) 'blow,' although it might be supported by the analogy in meaning of Goth. *us-an-an*, *exspirare*, and especially by *κέκηφε· τέθνηκε*, mentioned on p. 511, I abandon now, because it is more natural, with Windisch 'Stud.' vi. 259 and Fick i³. 640, to connect it with Skt. *dhvan* 'to veil one's self,' 'to be extinguished,' subst. *dhvan* (n.) 'gloom,' 'darkness,' *dhvas* 'to perish,' *dhvasa-s* 'destruction,' words which offer no phonetic difficulties. Also the comparison suggested by Benfey ii. 151 of *κύανο-ς* 'blue steel,' *κυάνεο-ς* 'of steel,' 'steel-blue,' 'blue-black' (*κυανῶπις*, *κυανοχαίτης*, *κυανόπεπλος*, *κυανόπρωρος*) with Skt. *çjā-má-s* 'black,' 'blue-black,' is doubtful to me, because here *two* phonetic transitions, which present difficulties, would be found together in the same word, in spite of *κούαμα· μέλανα Λάκωνες* (Hesych.) where *ου*=*υ*, which can never be shown to be the representative of a *j*, arouses doubt.

The other instances of this change, collected by Leo Meyer 'Ztschr.' viii. 136, are still more doubtful. In the assumed *ἕνο-ς* 'year' (*τρί-ενο-ς*) the evidence in favour of the rough breathing is much too uncertain to enable us to compare the Skt. *sámā* 'summer,' 'season,' and the meaning is different besides. — It is probable that *χλαμύ-ς* and *χλαῖνα* are connected. But the priority of the former is by no means self-evident. — We may finally mention the conjecture of Fick ii³. 20 that *ἀνία* 'plague' (*ἀνιάω, ἀνιάζω, ἀνιαρός*) is identical with Skt. *ámīvā* 'plague,' *ámīva-m* 'suffering,' 'pain.' This conjecture is favoured by the fact that no other etymology of *ἀνία* is to be discovered, while we must admit that the rt. *am* 'to be sick,' 'to suffer,' and the suffix *īva* do not occur elsewhere in Greek.

One of the most difficult words here in question is *γάμο-ς* 'marriage,' with *γαμεῖν* (*ἔ-γημα*), *γαμέ-τη-ς, γαμήλιο-ς, γαμ-β-ρό-ς*. With a completely corresponding meaning Sanskrit has also the labial nasal in *ǵāmātṛ* 'daughter's husband,' 'son-in-law,' *ǵāmā* 'daughter-in-law.' On the other hand in Lat. *gen-er*, which we can hardly make up our minds to separate from *γαμ-βρό-ς*, the *n* presents itself. The Lith. *gen-tì-s* 'consanguineus,' and ChSl. *zę-tĭ* 'gener,' words of 547
corresponding meaning, do not help to decide, because in these the nasal or the nasal after-sound might have come from *m* as well as from *n*. I have hence previously placed *γάμο-ς* under rt. *γεν, γα* (No. 128), and here, as in Lith. *gìm-ti* 'to be born,' assumed the transition from *n* to *m*, while Ascoli 'Lautl.' 101 inclines to the view that from the primitive rt. *ga* came two independent further formations *ga-n* and *ga-m*. But further reflexion has led me to a different view. In Skt. we find the words *ǵām-í-s* 'related,' 'belonging to,' then like *ǵāmā* 'daughter-in-law,' *vi-ǵām-án* 'akin' (cp. *ví-ǵāmin*) these completely recall the Lat. *gem-ini*, and exclude the connexion with *gen* 'beget,' for 'beget' and 'twins' are distinct conceptions. If we assumed it, we should have to derive with Bugge 'Ztschr.' xix. 423 *gemini* from **bi-gemini*. Thus we are brought to a rt. *gam*, meaning 'unite together.' Attempts have been previously made (especially by Schweizer 'Ztschr.' xii. 307) to prove that this root is a phonetic variation of rt. *dam* 'bind' (No. 260). But

from Skt. *d* we may indeed arrive (through *dj*) at Skt. *ǵ*, but never at Gk. *γ*; and besides the meaning of *gem-ini* does not suit. Similar considerations may have decided Fick ii³. 87 to seek for a special root for the words with a labial nasal. He finds this in the ChSl. *žǐmą* (inf. *žę-ti*) *σφίγγειν*, 'comprimere,' with which he attempts to couple also *γέμειν* 'to be full,' *γόμο-ς* 'burden' by the intermediate conception 'to force,' 'to press.' Certainly the agreement in meaning is by no means striking. Still I do not know anything better. Two difficulties still remain with this view, the *m* in the Lith. *gìm-ti* 'nasci,' and the *n* in the Lat. *gen-er*. Whether the Lithuanian word can be denominative, and so contain an *m* as a suffix (Fick i³. 67) I cannot decide. The *n* of *gen-er* Corssen 'Beitr.' 268 tries to explain from the influence of the *r* in contact with it in the primary form **gem-ro* = Gk. **γαμ-ρο*. We might also suppose that the reference by popular etymology to *genus*, *genitor*, etc. in time made an old isolated **gemer* into *gener*, especially as a resemblance to *genus* was certainly more desirable than that to *gemere*.

C. Sporadic Change of the Liquids.

For the relation of the liquids to each other we may refer to the discussion on p. 449. Here we place first those stems
548 and words, in which there is an interchange of λ and ρ. To these belong about 50 numbers already treated under regular substitution, in which, as will be seen hereafter, sometimes *r*, sometimes *l* is prevalent, and sometimes the one liquid, sometimes the other came to be current in Greek. We must add the following cases not yet discussed, with which we continue our numbering.

656. Root ἁλ ἅλλ-ο-μαι spring, leap (Hom. aor. ἅλτο), ἅλ-μα leap, ἅλ-σι-ς leaping, ἁλ-τήρ weight to leap with, ἁλ-τι-κό-ς skilled in leaping. — Skt. rt. *sar* (*sár-ā-mi*), run, glide, flow, *sal-ilá-s* surging, flowing, Zd. *har* go. — Lat. *sal-i-o*, *sal-tu-s*, *Sal-ii*, *sal-tā-re*, *sal-ax*, *sal-ebra*. — OIr. *do-fuislim* labo, elabor (*do-fo-ess-salim*), *tuisel* casus, *tarm-cho-sal* transgression.

Bopp 'Gl.' under the unauthenticated rt. *sal*, Benf. i. 60, Pott W. i. 668. — Kuhn 'Ztschr.' v. 206 wishes to separate entirely the forms ἅλτο (I. Bekker ἆλτο) and ἅλμενος with the smooth breathing, and to connect them with ἰάλλω, but I cannot persuade myself that this is right ('Greek Verb' pp. 90 and 130). ἅλμα with the meaning 'leap' θ 103, cannot possibly be separated from ἅλτο 'he leapt.' We must admit only this much, that our 'leap' is not quite adequate to translate these forms: but the same is true also of ἅλεσθαι, e. g. ἅλεται ὀφθαλμός 'the eye twitches,' cp. *cor salit*, ἄελλα καθαλλομένη Λ 297. The smooth breathing is in Homer to be regarded as an Aeolism, just as in ἄμυδις, ἰδίω, ἦμαρ. Are we to suppose that the old priests of Dodona too, the Σελλοί (Π 234) or Ἕλλοι (Pind. [frag. 31 Böckh p. 341 Donaldson]) belong here, and correspond to the *Salii*? Cp. Arcad. ζέλλω = βάλλω. Otherwise Schweizer 'Ztschr.' xii. 308. — The meaning 'leap' is confined to the Graeco-Italians. The same root occurs in a usage differently developed in No. 502. Bopp compares also ChSl. *sŭl-a-ti* 'send,' whence *sŭlŭ* 'legatus,' Fick i². 796 the Lith. *sèl-ti* 'creep,' Corssen 'Nachtr.' 283, ii². 71 Lat. *consul-ere* in the sense of 'convenire' and *consul*. — Authorities for the Irish words at Z². 879, 883, 985: *tuisel* (from *do-fo-ess-sel*) is a literal translation of Lat. *casus*. The proper application of this root in Old Irish is shown also by *do-for-chossol cách in recht sin ho adam* 'from Adam onwards everyone transgressed this law' Z². 886. Ebel ('Beitr.' ii. 158) wrongly compares with ἅλλομαι OIr. *saillim* 'sallio,' 'I salt.'

657. ἅλ-ς m. salt, f. salt sea, ἅλ-ες intellectual 'salt,' ἅλ-ι-ος marinus, ἁλι-εύ-ς fisher, ἅλ-μη brine, ἁλ-μυρό-ς salt, ἁλ-ίζ-ω salt.

Skt. *sará-s* salt (adj., perhaps "Pet. Dict.").

Lat. *sal*, *sal-es* = ἅλ-ες, *sal-īnu-s*, *sal-īnu-m*, *sal-ī-re* (also *sall-ī-re*) salt, *sal-su-s*, *salsa-mentu-m*.

Goth. *sal-t* n. salt, *salt-an* to salt, OHG. *sulza* salsugo [saltness].

ChSl. *sol-ĭ* salt, *sla-nŭ* salsus, *slatina* salsugo.

Lith. *suru-s* salt (adj.)?

OIr. *salann* sal (Z². 778), *saillim* I salt, Cymr. *halan*, Corn. *haloin* sal (Z². 825).

Benf. i. 59, Diefenb. ii. 188, Pott W. ii. 1, 662, Stokes 'Ir. Gl.' 977, 549
Goid.² 63. — We place together here only words which unmistakably go back to the idea of salt. To these belong *sale* = ἡ ἅλς in Ennius 'Ann.' 378 and the equivalent *salācia* [perhaps more strictly a proper name, 'the goddess of the sea:' cp. Preller 'Röm. Myth.²' p. 503

and the quotations there], but not *salu-s*, *salu-m* = σάλος (No. 556) or even Skt. *sal-ilá-m* 'water.' Perhaps our stem had originally in Greek as well as in Latin an *ι* at the end, which appears in ἁλι-εύ-ς and in compounds: ἁλι-πόρφυρο-ς (Roediger 'Comp.' 56).—The Goth. *sal-t* is extended by a *t* and corresponds to the Greek theme ἅλατ, of which the nom. (τὸ) ἅλας is given as vulgar-Greek by the grammarians. (For the proverb of ἅλασιν ὕει the better reading is ἀλλᾶσιν ὕει). — The root is probably akin to No. 506, so that the fundamental idea would be that of something coagulated. — Stokes 'Beitr.' viii. 348 adds also Ir. *sál* 'sea.'

658. βλάσ-τη, βλασ-τό-ς shoot, βλαστ-άν-ω (aor. ἔ-βλαστ-ο-ν) shoot.

Skt. rt. *vardh* (*várdh-ā-mi*) make larger, mid. grow, part. *vṛddhá-s* increased [*vṛddhi-s* growth: cp. vol. i. p. 63 note]. Zd. *vared* to increase, *vareda* adj. growing, subst. masc. growth.

Bopp 'Gl.,' Benf. i. 79. — We may assume a rt. *vardh*, which by metathesis became *vradh*, Gk. ϝλαθ and with β for ϝ, as in No. 166 b, βλαθ. Thence regularly βλάστ-η, βλαστ-άνω from an expanded stem (cp. αὐξάνω, ἰζάνω). I have tried to show 'Studien' i. 2, 295 that βλωθ-ρό-ς 'tall,' 'slender,' of trees, with the θ retained, and βλο-συρό-ς 'swelling,' 'luxuriant' [veteres: *truculentus*; cp. Ebeling 'Lex. Homer.' in voc.], with the suffix which appears in ἀή-συρο-ς, belong here. Similarly the Germ. *gross* [with the cognate and equivalent Eng. *great* OEng. and AS. *grôt*] comes from the notion of increase (Eng. *grow* [OEng. *grôthan*]): cp. also *al-tu-s* with *al-escere*, *ad-olescere*. These etymologies are confirmed by Skt. *vrādh-ant* 'great.' (Bühler 'Orient und Occident' ii. 538.) — Bugge's view ('Ztschr.' xx. 28), which is different, does not satisfy me. [Fick i³. 215 derives ὀρθό-ς (dialect. βορθό-ς, cp. above p. 474) from *vardh* with the meaning raise; cp. i³. 775, iv. 78; and for a possible connexion of *vṛdh* 'to grow' with *vṛit* 'be' Max Müller 'Sanskrit Grammar' p. 262. M. Williams 'Skt. Dict.' adds Goth. *vaur-ts* 'root,' doubtful because of the anomalous shifting (cp. No. 503), and more probably AS. *weald*.]

659. Root βολ βούλ-ο-μαι (Hom. βόλ-ε-ται [Λ 319, βόλεσθε π 387], ἐ-βόλ-ο-ντο [α 234] will, wish, βουλ-ή counsel, βούλ-η-σι-ς, βούλ-η-μα will, βουλεύ-ω advise.

Skt. rt. *var* (*vṛ-ṇō-mi*, *vṛ-ṇā-mi*) choose, prefer, *var-á-s* choosing, wooer, *vára-s* wish, desired, preferable, *vra-tá-m* will, duty, vow. Zd. *var* choose, wish.

Lat. *vol-o*, *vol-un-tā-s*, *volunt-ariu-s*.

Goth. *vil-j-an* βούλεσθαι (OHG. *wëllan*), *ga-vil-ji-s* willing, *val-j-an* choose (MG. *wählen*), OHG. *will-io*, *will-o* voluntas.

Lith. *vél-yju* (I) wish, advise, *vélyju-s* (mid.) prefer, ChSl. *vol-i-ti* βούλεσθαι, *vol-ja* θέλημα.

Bopp 'Gl.' s. v. *var*, Pott W. ii. 1, 597, Benf. i. 320. — For $\beta = v$ see below pp. 583–589. — The *r* of this root has in all European languages become *l*. It is only the Homeric formula ἐπὶ ϝῆρα φέρειν which resembles in sound the Zd. *vāra* 'wish,' 'gift' (Fick i³. 771). The affinity of the rt. ϝελδ — ἔλδ-ο-μαι, ἐέλδ-ωρ — which is expanded by *d*, and of the rt. ϝελπ (No. 333) = *volup*, which is expanded by *p* (cp. pp. 60, 62), cannot be denied. — For βούλ-ο-μαι 550
(Cret. βώλομαι) the Aeolic form βόλλ-ο-μαι, for βουλ-ή (Cret. βωλά) βόλλα (Ahrens 59) are worth notice. λλ is probably for λν, seeing that in Sanskrit this root makes use of the syllables *nu* and *nā* (*nī*) to form the present; then in βόλ-λα we should have to regard -να as the suffix, and it would only be the Homeric βόλ-ε-ται and the Cyprian σί βόλε; τί θέλεις; (Hesych.) which would be quite parallel to *vol-o*. [Cp. Schleicher 'Comp.²' 217 and Brugman in 'Studien' iv. 121.] — Certainly βέλ-τιον, βέλ-τερο-ς, belong here, as comparatives to the Skt. *váras* and Goth. *vaila* (adv.) 'well' (Eng. *well*) (Clemm 'Fleckeis. Jahrb.' 1870 p. 40, Joh. Schmidt 'Ztschr.' xix. 382), probably Umbr. *eh-vel-tu* 'decernito,' *eh-vel-klu* 'decretum' also belong here, as compounds with *eh* = *ex* ('Aufr. u. Kirchh.' ii. 329) [Corssen ii². 17, 20]. — Also OIr. *fil* with the acc. in the meaning of the Fr. *il y a* 'there is:' cp. Windisch 'Auslautges.' p. 228.

660. Root ϝελ εἴλ-ω, εἴλλ-ω, εἰλ-έ-ω (aor. ἐ-άλ-ην, pf. pass. ἔ-ελ-μαι) press, shut in, εἶλ-αρ a fencing around, defence, οὐλ-α-μό-ς throng, εἴλ-η (Tarent. βείλη), ἴλ-η, ὅμ-ιλο-ς troop, crowd.

Skt. rt. *var* (*vár-ē*, *vṛ-ṇó-mi*) surround, enclose, protect, *apa-var* cover up, *api-var* conceal, *vārá-jā-mi* hold off, ward off, *vāra-s* defence, *var-aṇá-s* rampart. Zd. *apa-var* to hold off, *var-a* garden, *var-atha* m., protection.

Lith. *at-vér-ti* to open, *su-vér-ti* close, ChSl. *vr-ě-ti* claudere, *ver-ėja* vectis, *vor-a* saepimentum.

The necessity of separating these words from rt. ϝελ 'wind,' was treated on No. 527 (cp. Döderlein 'Gl.' 442 ff.). Otherwise Sonne 'Ztschr.' xii. 365. I only differ from Buttmann ('Lexil.' ii. 141)

when he starts from the idea of striking. Everything points us rather to the fundamental notions of pressing, restraining, barring, or (in compounds) unbarring ['restraining' carrying with it also the idea of 'protecting' as in the Germ. *wehren*]. The *ϝ* is found in *ἐγ-ϝηλ-η-θίωντι* = *ἐξειληθῶσι* 'Tab. Heracl.' i^{b}. 104, indirectly in *βήλημα· κώλυμα, φράγμα Λάκωνες* (Hesych.), *γηλουμένοις· συνειλημμένοις* (Hesych.); cp. Ahrens 'Dor.' 160; and also in *ἐάλη-ν, ἐ-ώλει, ἐώληται* ('Greek Verb' pp. 79, 362). On the *ϝ* of *οὐλαμός* see Knös 75. The *ει* = Dor. *η* of the present is treated by Brugman 'Stud.' iv. 122.—The following Greek words also belong here: *ἅλ-υ-σι-ς* 'chain,' 'distress,' 'exclusion' [Lidd. and Scott derive the word in the last two senses from *ἀλύω*, and this from *ἅλη, ἀλάομαι*: cp. p. 557 ad in.] and *ἁλῶναι, ἁλ-ίσκο-μαι* 'get taken prisoner,' where the *ϝ* betrays itself, as in *ἐ-ά-λ-ην*, by the augment (*ἑάλων*) and the Aeol. *ε-ὐάλω-κα* (Ahrens 36, cp. below p. 554), *ἀπείλλω* Aeol. *ἀπέλλω· ἀποκλείω, ἀπέλλαι· σηκοί, ἐκκλησίαι* (Hesych.), *ἀ-ολλέ-ες* properly 'crowded together' (*ἀ* = *ἁ* 'together' [No. 598]), with the cognate *ἀελλής* Γ 13 and *ἅλής*, adv. *ἅλις, ἁλία* 'assembly,' *ἁλίζειν* 'assemble,' *ἡλι-αία, δίκη ἐξ-ούλη-ς*, action for barring out or exclusion from one's own property an ['ejectment-suit']. *οὐ* is probably here, as in *οὐλ-αμό-ς*, for *ϝο*. To *εἴλη, ἴλη* belong the synonymous Zd. *ûra* (fem.) 'troop,' Skt. *vra* n. pl. *vrā-s* 'heap,' 'troop,' *vāra-s* 'crowd,' Lith. *vorà* (f.) 'long row,' Skt. *vrá-ta-s* 'troop,' 'heap,' 'company,' discussed by Bugge 'Bezzenb. Beitr.' iii. 114. We are tempted to refer *ἑορτή*, Lesb. *ἕρο-τι-ς* 'festival' here rather than, as was done at p. 587, to the Skt. *vratá-m*. In that case the word would properly mean 'swarm,' 'crowd,' cp. *πανήγυρις*. It is true that this would be the only trace in Greek of the *ρ* in this stem.—From the Teutonic we must refer to this root Goth. *varjan κωλύειν* with MG. *wehren* 'restrain,' 'protect,' and all its belongings [AS. *werian, werigan* 'defend,' whence *weardian* 'to *ward* off']. But as many of the words collected by Diefenbach i. 201 ff. are connected with those discussed by us under No. 501, I content myself with this intimation.—Stokes 'Beitr.' viii. 349 adds to this number OIr. *fál* 'hedge,' *fĕlmae* 'saepes.'

551 661. *ἰ-άλλω* hasten, send, shoot.—Skt. rt. *ar*, redupl. *ij-ar* (and, contracted from this, *īr*), pres. *ij-ar-mi* to raise oneself, move.—OHG. *îl-an* (MG. *eilen*) hasten.

Kuhn 'Ztschr.' v. 195 ff., otherwise Pott W. i. 289.—The Greek *ἰ-* must be taken as a syllable of reduplication, just as in *ἰ-αύ-ω* (No. 587). The intransitive meaning 'hasten' is retained only in Hesiod. 'Theog.' 269 [cp. *ἰάπτει* in Aesch. 'Suppl.' 541 (Paley), and

Eng. *shoot*]; the most various uses of *ἰάλλειν* in a transitive sense—and so with *προ-*, *ἐπ-ιάλλειν*—have, as Kuhn well points out, their analogies in the use of the verbs quoted in the language of the Vedas. — The same root occurs in *ἔρ-χ-ο-μαι*, *ἦλ-υ-θ-ο-ν* (p. 63), but also, if the traditional account is correct, without reduplication in *ἀπ-άλλ-εις ἀποπέμπεις* Bekk. 'Anecd.' p. 414, Lobeck ad 'Ajac.' p. 313, perhaps also in *μέτ-αλλο-ν*, *μετ-αλλᾶν* (cp. *μετέρχεσθαι*), as Kvíčala makes out, 'Ber. d. phil.-hist. Cl.' of the Vienna Academy 1870 p. 89, while Fick in Bezzenb. 'Beitr.' i. 335 wishes to connect the word with *ματ-έω*, *ματ-εύω* 'seek.'— Finally the stem *ἑλα* in *ἐλαύνω* fut. *ἐλῶ* might also belong here. — Fick i³. 509 takes an entirely different view. — We are reminded of the Gk. *ἑλάω* by OIr. *laaim* 'I send,' 'throw,' 'drive' pret. sing. 3 *ro lá*, pl. 3 *ro lásat*; of the Gk. *ἦλυθον* by OIr. *luid* 'he went:' cp. Stokes 'Beitr.' vii. 25, Windisch ibid. viii. 448.

662. *ὅλο-ς* (Ion. *οὖλο-ς*) whole. — Skt. *sárva-s* whole, all, Zd. *haurva* all.

Benf. i. 420, Aufrecht 'Ztschr.' i. 121. — We must assume an OGk. *ὅλλο-ς*, which is to *ὅλο-ς* as Hom. *μέσσος*, *ὄσσος* to *μέσος*, *ὅσος* and to the Ion. *οὖλο-ς* as Aeol. *βόλλα* to *βουλή*. — Whether the OLat. *sollu-s*, superl. *sollis-timu-s* 'whole' with *sol-idu-s* belong here seems to me now doubtful, because Fick, who i³. 797 compares the word, as well as *sōlāri*, *consōlāri*, with the Goth. *sêl-s* 'worthy,' 'good,' AS. *sâl-ig*, justly remarks that *lv* is one of the most favourite combinations in Latin. But we must keep quite apart the Lat. *servare*, inasmuch as *observare* (Fick i³. 796) shows that in it we have a rt. *sar* 'protect' (Zd. *har* 'defend'); *ser-vu-s* is however rather 'the protected' than 'the protector.' *sal-vu-s* found its place under No. 555. — Other combinations, which I cannot accept, are furnished by Corssen i². 487, Pott W. i. 1279.

663. *Σείρ-ιο-ς*, *Σείρ* sun, dogstar, *σειρ-ιά-ω* burn, shine, *σειρ-ία-σι-ς* sun-burning, *σείρ-ινο-ς* summerlike; *σέλ-ας* brightness, *σελ-ήνη* moon.

Skt. *svar* heaven, rt. *svar* be bright, shine; *súr-a-s*, *súr-ja-s* (for *svar-ja-s*) sun. Zd. *hvare* sun, *qaretha*, *qarenaṅh* (n.) brightness.

Lat. *sĕr-ēnu-s*. — *sōl*.

Goth. *sauil* (n.) sun, ON. *sôl*.

Lith. *sáulė*, ChSl. *slŭ-nĭce* sun.

Cymr. and Corn. *heul* sol, OIr. *súil* gen. *súla* f. oculus.

Bopp 'Gl.,' Benf. i. 460, Diefenbach ii. 193, though all introduce much that is unconnected. — Our words start from the rt. *svar*, whence comes the shortest form Σείρ in Suidas (Lobeck 'Paralipp.'
552 75), formed like χείρ (No. 189), and the fuller Σείρ-ιο-ς (from *svar-ja-s*) in Archiloch. Frag. 61 Bergk[3]. The ι of the first syllable is epenthetic, as in the Homer. θεμείλια, or like the υ in πουλύ-ς. This meets the objection of Max Müller ('Lect.' ii. 480). By the side of this rt. σερ for σϝερ a form σελ for σϝελ established itself in Greek. A third form, the affinity of which can hardly be questioned, is ἑλ in ἑλ-άνη 'torch,' perhaps in the proper name Ἑλένη [which M. Müller however identifies with *saramâ*, deriving the latter from rt. *sar* 'go' (No. 502) 'Lect.' ii. 463]. — On the other hand εἴλη beside ἀλέα 'warmth of the sun' (Hesych. βέλα, ἥλιος καὶ αὐγὴ ὑπὸ Λακώνων), but also γέλαν, αὐγὴν ἡλίου (Hesych.), is better separated from this root with Fick i[3]. 772. Fick compares the words with the ChSl. *var-ŭ* 'heat,' to which we return on p. 587. — As in Greek, so in Latin the liquid has been preserved in both forms. To the forms in *r* belong perhaps Apollo *Sor-ānu-s* and the name of the mountain *Sōracte*, in Cato (ed. Jordan p. 11) *Sauracte*. Cp. Preller 'Röm. Myth.[2]' 239. — The northern languages have only *l*. — The complete distinctness of these words from ἠέλιο-ς, later ἥλιο-ς, has been proved 'Ztschr.' i. 29 ff. (cp. above on No. 612). — The Keltic words (Z[2]. 107, 250) seem to point to an original *savali*. [Cp. Corssen i[2]. 136].

664. Root σκαλ σκάλλω scrape, dig, σκαλ-ί-ς hoe, σκαλ-εύ-ς hoer, σκάλ-μη knife. — OHG. *scar* plough-share [AS. *scār* or *scear*].

Pott W. ii. 1, 685, Benf. i. 197. — Cp. No. 106 and Kuhn 'Ztschr.' iii. 427.

In addition to these instances, which we may put down as certain, there are also the following, which carry with them great probability, though they are still exposed to doubts of various kinds.

γλαμυρό-ς or γλάμων 'blear-eyed,' with the verb γλαμᾶν and the equivalent λημᾶν, λήμη, which have lost an initial γ, and which were regarded by the Atticists (Moeris p. 193 Bekk.) as less good Attic, undoubtedly corresponds to the Lat. *gramia*, *gramiosus* (Pott i[1]. 117); but as *glamae* is also found in the same sense (Paul. 'Epit.' 96), the Latin word may be suspected of having been borrowed. — Otherwise Bezzenb. 'Beitr.' i. 339.

ἕλμι-ς, ἕλμιν-ς (st. ἑλμι and ἑλμινθ), by-form ἕλμιγξ (st. ἑλμιγγ cp. Lobeck 'Paralipp.' 167) 'intestinal worm,' has been often (Pott i[1]. 84, Bopp 'Gl.') compared with Skt. *kṛ́mi-s* 'worm,' Lat. *vermi-s*, Goth. *vaúrm-s* 'serpens,' Lith. *kìrmi-s* (*kirmėlė*), ChSl. *črŭvĭ* 'worm,' OIr. *cruim* (Z[2]. 250). Stier ('Ztschr.' xi. 247) adds also Albanian words. All the forms might be explained from a primitive *karmi-s*, by supposing that from this first *kvarmi-s* was developed, then, in Gk., Lat., and Teut., *varmi-s*, and thence ϝελμι-ς (Corssen 'Nachtr.' 33). But as no certain instance of the mutilation of an initial *kv* to *v* in Greek has been pointed out, the connexion of the forms beginning with *k* and with *v* respectively remains doubtful. With Aufrecht (on 'Uǵǵvaladatta' p. 276) therefore I only maintain with certainty that Skt. *kṛ́mi-s*, Ir. *cruim*, Lith. *kìrmi-s*, and ChSl. *črŭvĭ* [cp. p. 578] are identical, and that *vermi-s* and Goth. *vaúrm-s* are mutually 553
akin. But it seems to me that even the identity of the word ἕλμι-ς (cp. p. 564), which is rare and restricted to one species of worm, with the common *vermi-s*, which includes the whole genus, is not yet indubitable. (Otherwise again Fick i[3]. 771.) Aufrecht takes ϝελ 'wind,' 'curve' (No. 527) as the root, but this has elsewhere always an *l* in Latin and Teutonic. The νθ of the st. ἑλμινθ is evidently, like the γγ of the rarer ἑλμιγγ, of a diminutival character (cp. above p. 495).

λᾶ-ας (for λᾶϝ-α-ς) 'stone,' with the by-form λευ-ς, to be deduced from λεύ-ω 'stone,' λευ-στ-ό-ς, λευ-σ-μό-ς, λευ-σ-τήρ, which with the irregularities of inflexion points to an old stem λᾱϝ, has been compared by Bopp 'Gl.,' Benf. ii. 8 with Skt. *grā́van* 'stone for squeezing out the Soma-juice,' and then 'stone' in general, and with Lith. *rėvà* 'rock,' 'cliff.' As the Ir. *broo* 'millstone,' corresponds to the Skt. *grā́van*, the comparison with the Skt. word is very uncertain, especially as the loss of an initial γ (cp. λήμη above) is quite rare. Bezzenberger 'Beitr.' ii. 271 attempts a new, but by no means satisfactory combination.

λύσσα 'rage,' 'rabies' (of dogs) (Att. λύττα), whence come λυσσάω, λυσσαίν-ω, λυσσητήρ, λυσσώδης, λυσσο-μανής, etc., is connected by Bopp 'Gl.' and Benf. ii. 5 with Skt. *rush* 'to be angry,' (pres. *rṓshā-mi* and *rúsh-jā-mi*), subst. *rush*

(f.) 'anger,' 'rage.' λύσσα would be for λυσ-j-α. Cp. Ascoli 'Krit. Stud.' 343. As a connexion with λύκο-ς (No. 89) is possible, I place this comparison among the doubtful ones.

We must now take a general survey of the mutual relations of the two liquids. On p. 83 we held it to be advisable to treat ρ and λ as sounds nearly akin and frequently interchanging, but not as sounds which had only developed in this duality after the separation of the languages from a single Indo-Germanic liquid *r*[1]. We preferred to assume even for the Indo-Germanic period, by the side of the stronger trill, which is the older, wherever there is a variation between them, the existence of the gliding sound *l*. This view is
554 confirmed by the numerical proportions of the occurrence of both sounds. About three-fourths of the whole number of liquids remain unchanged, one-fourth varies and fluctuates.

With regard to the liquids which remain unchanged, those instances are especially noteworthy, in which either *r* or *l* is found in a long list of languages, without the slightest tendency to a variation. We may quote as examples of ρ

No. 490 ἀροῦν Lat. *arare*, Goth. *arjan*, Lith. *árti*, Ir. *airim*.
„ 492 ἐρέσσειν Skt. *ar-i-tra-m*, Lat. *rēmu-s*, ON. *ár*, Lith. *ìrti*
„ 39 καρδ-ία Skt. *hṛd* (?), Lat. *cor*, Goth. *haírtô*, Lith. *szirdìs*, Ir. *cride*
„ 411 φέρ-ω Skt. *bhárāmi*, Lat. *fero*, Goth. *baíra*, ChSl. *berą*, Ir. *do-biur*,

for λ

No. 31 καλό-ς Skt. *kalja-s*, Goth. *hail-s*, ChSl. *cělŭ*
„ 546 λύω Skt. *lū*, Lat. (*so*)*lu-o*, Goth. *lau-s*
„ 536 b λάπτω Lat. *lambo*, OHG. *lefsa*, Lith. *lùpa*

[1] The existence of an *l* in the time before the separation of languages is maintained by Heymann in his essay 'The *l* of the Indo-Germanic language belongs to the Indo-Germanic primitive language' Göttingen 1873. The writer distinguishes an *l* belonging to the primitive language from that which subsequently arose out of *r*. — Armenian agrees in its *l* with the European, as Hübschmann 'Ztschr.' xxiii. 35 shows. — How here and there the choice between *r* and *l* was determined by contiguous syllables (ἀργαλέος beside ἄλγος) is shown by Bechtel in his doctoral dissertation 'On mutual assimilation and dissimilation of the trills' Gött. 1876.

No. 236 rt. *τελ*, *ταλ*, *τλῆναι* Skt. *tul*, Lat. *tuli*, Goth. *thulan*, ChSl. *tulŭ*.

I see no reason why we should not, in stems and roots like these, assume that the liquid which we find universally was Indo-Germanic. — It is true that there is also a considerable number of words, in which Sanskrit shows the harder liquid, while the softer appears in Greek. But it is rare for Greek to stand isolated: as a rule Latin, and often another European language besides, agrees with it, e. g.

No. 61 *κλόνι-ς* Lat. *clūni-s*, Lith. *szlauni-s*, but Skt. *çrôṇi-s*

„ 62 *κλύ-ω* Lat. *clu-o*, Goth. *hliu-ma*, ChSl. *slu-ti*, but Skt. *çru*

„ 366 *πίμπλημι* Lat. *ple-o*, Goth. *full-s*, ChSl. *plŭ-nŭ*, OIr. *lá-n*, but Skt. *píparmi*

„ 563 *ὠλένη* Lat. *ulna*, Goth. *aleina*, OIr. *uile*, but Skt. *ar-atní-s*.

In such cases therefore the *l* may have been developed only after the severance of the other families from the Indian, or the Indo-Persian. It is very rare for an *r* to be found at all in the European languages, which is represented in Skt. by *l*: the instance formerly quoted here for this: *λακεῖν* Lat. *loqu-i*, Skt. *lap*, ChSl. *rek-ą*, we saw under No. 85 that we could not maintain, chiefly because of the Skt. *p*. If there are any such cases, we have a choice between two views. Either we must admit the change of *r* into *l* in Sanskrit too, and of this we quoted instances from the Romance languages on p. 449, while it is common in the modern Cretan dialect as compared with ancient Greek (Voretzsch 'De Inscript. Cret.' p. 28, from Pashley), or one European language has here accidentally preserved the older sound [*sic*: but there is here some error in the text]. Considering the great rarity of this relation (cp. OHG. *ringi* under No. 168 [*ru-m-p-o* under Nos. 331, 341]) we may lay it down as a rule not readily to expect an *r* in the other languages, corresponding to a Sanskrit *l*. To admit this phonetic representation, the agreement in the other sounds of the word and in the meaning 555
must be very striking. This is e. g. by no means the case with the comparison, proposed by Christ p. 17, of *κόρο-ς* 'black,' a word moreover only quoted by grammarians as

the etymon of κόραξ, with Skt. *kāla-s* 'blue-black.' The words belonging to *kāla-s* we collected under No. 46, those akin to κόραξ under No. 69.

Without entering more particularly upon the further differences of the several families of speech and individual languages on this point, we may add some remarks upon the relation of the Greek liquids to the Latin, and upon the variation between ρ and λ in Greek itself. The close kinship of the two South-European languages comes out also in this respect. For example, the relation of the Graeco-Italic rt. *melg* to *merg* (Nos. 150, 151) is significant. The Indo-Germanic rt. *marg* as early as the Graeco-Italic time split into two forms: *merg* (*ἀμέργω, ὀμόργ-νυ-μι, merga*) and *melg* (*ἀμέλγω, mulgeo*) and that in such a manner that the difference of meaning is just as clear as its original identity. As the northern languages have preserved only the form with *l*, it cannot be determined whether this division is not still older. — χλό-η (No. 197), χλωρό-ς corresponds to the Lat. *hel-us, hol-us*, to the Lith. *žol-ė* 'cabbage,' *žál-ie-s* 'green,' ChSl. *zelije* 'holera,' Ir. *gel* 'white,' but to the Skt. *hár-i-s*, OHG. *grô-ni*. The *l* is therefore in this instance Graeco-Italo-Kelto-Letto-Slavonic. [But Fick 'Ehemalige Spracheinheit' p. 237 omits *grôni* and adds OHG. *gëlo, gëlaw-êr* 'yellow,' adding 'the Arian base of this group is *har*, the European *ghal, ghel*']. — The rt. ἀλφ 'earn,' 'work' has at its side the Latin *lab* with an *l* (No. 398), while all the other languages, with the possible exception of the Lithuanian, show *r*. Under No. 468 we saw that the rt. μαρ (*μαραίνω*) appears with this sound in *mar-c-e-o*, while for the meaning 'fade' Skt. has the rt. *mlāi* or *mlā*, with which perhaps the German *welk* [used in English by Spenser and Milton] is connected. Here the Graeco-Italic peculiarity is shown in the preservation of the old *r*. Such an agreement is not, indeed, everywhere to be found. We compared χάλαζα (No. 181) with *grando*, χελιδών (No. 187) with *hirundo*, κολεκάνος (No. 67) with *cracentes*, βάρβαρο-ς (No. 394) with *balbu-s*, *stlā-tu-s* with rt. στορ, στερ (No. 227) in spite of the difference of the liquids. But these cases are rare, and as a rule we can detect some uncertainty in the liquids, either within the Latin language, as in the instance last-mentioned, where *strā-tu-s* occurs, or, as

with λάκος, ῥάκος (No. 86) in Greek itself. Thus though we have Gk. κύκλο-ς (No. 81) corresponding to the Lat. *circu-s*, we find also κίρκο-ς. We must compare *curvu-s*, not only with κυλλό-ς, which belongs to the same root, but also with κυρ- 556
τό-ς. In this case we have in Latin also the softer liquid in *clingere*, *cingere* (Fest. p. 56), which is derived from this root; to this form Dietrich called my attention in his review (Jahn's 'Jahrb.' 81, 40). Lat. *vellus* seems to come nearer to the Goth. *vulla* than to the Gk ϝέρ-ιο-ν (No. 496), but by the side of this we have the more similar οὖλο-ς. — On the other hand λ is predominant in Gk. χολάδες, χόλιξ (No. 199), compared with Lat. *haru-spex*, *hira*, but we have also the latter sound in Gk. χορ-δή. — Of the three forms στλεγγί-ς, στελγ-ί-ς, στεργ-ί-ς (No. 576) the last comes nearest to the Lat. *strigili-s*. The facts being such, the following rule holds good for the comparison of Greek words with Latin; that we are always to expect *r* for *r*, *l* for *l*; and that exceptions are only to be admitted when the probability on other grounds is especially great.

Finally, it has often been observed in ancient and modern times, that in Greek itself the two liquids are interchanged. The rt. *kar* 'call,' 'praise' (*kar* 2 in the 'Pet. Dict.') is represented on the one hand by κῆρ-υξ 'herald,' an expansion from the stem preserved in the Skt. *kār-ú-s* 'singer of praises,' on the other by the widely ramified form καλ (καλέω) No. 29 b, which appears also as Italic, Teutonic, and Irish. In two widely extended stems the interchange of the liquids has actually made its way into the inflexion of verbs. The stem ἐλ-θ has been already mentioned under No. 661, and on p. 65 divided into ἐλ (Homer. ἐλ-υ) with the determinative θ. ἐλ-θ is to ἐλ as φθι-θ (ἔ-φθι-θ-ο-ν) to φθι. The *υ* is to be regarded as an anaptyctic vowel, like the ε of νεμ-έ-θ-ο-ντο, φλεγ-έ-θ-ω, or the *υ* in Τ-ύ-μωλος = Τμῶλος (Lobeck 'El.' i. 477), and is found even in forms which, like προσ-ήλυ-το-ς, ἔπ-ηλυ-ς, are formed without θ. The rt. ἐλ may be regarded without hesitation as a later by-form of ἐρ, and corresponds to the Skt. *ar* 'go,' 'attain.' It is the same root which we met under No. 500 and in the forms there given as cognate. — The older form ἐρ underlies the present stem ἐρ-χ. The χ has arisen from the inchoative σκ in accordance with an analogy

to be further discussed on p. 701. ἔρ-χ-ο-μαι therefore means properly 'I begin to go,' and corresponds to the Skt. *arkh* 'attain,' 'fall to the share of' (Benf. i. 63), where the *kh*, likewise limited to the present stem, also goes back to *sk*, and enables us to deduce the Indo-Germanic form *ar-sk* (cp. Leo Meyer i. 345). — From the same root, by means of a determinative *s*, *er-s* was formed, Lat. *err-or* (for *ers-or*), *errare*, Goth. *aírz-jan* πλανᾶν, Mod. Germ. *irren* (Benf. i. 62, L. Meyer i. 397). Joh. Schmidt 'Voc.' ii. 459 shows also the connexion with Goth. *ur-reis-an* and Skt. *arsh* 'flow.' We may add
557 παλίν-ορσ-ο-ς, ἄψ-ορ-ρο-ς. But we must keep distinct Gk. ἔρρω, because it shows clear traces of the digamma (βέρρης Ahr. 'Dor.' 46, ἐνθάδε ϝέρρων Θ 239, Knös 100). — On the other hand we cannot but refer ἄλ-η 'wandering,' ἀλᾶσθαι 'to wander,' ἀλέη 'avoidance,' ἀλεείνειν 'avoid,' ἀλεύασθαι 'shun,' ἠλεός, ἠλός 'astray,' 'confused,' with ἠλίθ-ιο-ς 'foolish,' ἠλ-ασκ-άζειν 'stray,' 'escape,' and ἀλάσ-τωρ properly 'scarer,' 'driver,' then 'spirit of revenge' (cp. Keck on Aesch. 'Ag.' p. 18), to a rt. ἀλ, which is originally identical with *ar*, ἀρ, ἐρ, ὀρ, ἐλ. We can however hardly regard it as accidental, that the gliding sound should have attached itself just to the words with this signification. To ἠλίθιο-ς I added also ἤλ-ι-τ-ο-ν 'I went wrong,' 'sinned,' which is connected in meaning, and the τ of which is justified as a formative element ('Greek Verb' p. 281). But certainly ἀλιτεῖν, ἀλιτέσθαι, ἀλείτη-ς ἀλιτρό-ς have in Homer a more energetic force. Hence the notion of Fröhde in Bezz. 'Beitr.' iii. 17 to connect the rt. λιτ (with prothesis ἀ-λιτ) with Goth. *sleitha* 'mischief,' *sleith-s* 'bad,' *ga-sleith-jan* 'damage' is worth consideration.

It is more difficult to analyse αἱρέω and εἷλον. The augment of the aorist leads us to infer an initial consonant ('Greek Verb' p. 85), so too ἀπο-αιρεῖσθαι *A* 230, ἀπο-αίρεο *A* 275 compared with ἀφαιρεῖται *A* 182 and ϝέλωρ, ϝελώρια, as I. Bekker writes to avoid hiatus (*A* 4, *E* 684). In Alcaeus (Fr. 68) Bergk formerly read ἐκϝέλετο instead of the senseless ἐκ δ' ἕλετο of the MSS., now (ed. 2 and 3) he has accepted I. Bekker's ἐκ σ' ἕλετο. Neither the one nor the other can be established. The meaning makes it dangerous to connect this stem with No. 659, for the notion is always that of grasping,

taking. It is certain on the other hand that the root of *αἱρέω* (which is doubtless for *ἀρ-j-ω*), is to ἐλ just as ἐρ is to ἐλ. And thus the form *ἀφαιλησέσθαι* is extremely remarkable: it is to be found now on a Cretan inscription ('De Inscript. Cretensi' scr. Rich. Bergmann: Gratulationsschr. des Brandenb. Gymn. zur Berliner Jubelfeier 1860), and forms the bridge between *αἱρέω* and *εἷλον*. From the cognate languages nothing corresponding has been adduced, except the Goth. *vil-v-an* 'rob' compared by Fick i³. 778, to which belongs also *vil-v-a* 'robber,' where the *v* recalls that of Lat. *vol-v-o*, Goth. *val-v-jan*. In meaning *ἕλωρ* corresponds most closely, as in Lat. *vol-tur*, *vul-tur* 'robber,' and the *ω* possibly has come from *Fα*, so that in form too the word comes nearer to the Gothic form. — *καλύπ-τειν*, which on p. 539 was connected with *cel-a-re*, can hardly be separated from *κρύπτειν*, as will be seen.

Besides these words we may also refer to *λεβίνθιοι* and *ἐρέβινθοι* (No. 494), rt. κλυ and *ἀ-κρο-ά-ο-μαι* (No. 62), to ἀλκ and ἀρκ (No. 7), *βλύω* and *βρύω* (Lobeck 'Rhem.' 23), *κείρω* and *κόλο-ς*, *κελεῖς* (No. 53) and Lat. *cul-ter*, *μέλει* and *μέλλειν* and 558
μέριμνα (No. 466), *πόρκο-ς* and *πλέκω* (No. 103), *τέλος* and *τέρμα* (No. 238), *χλουνός* and *χρυσός* (No. 202) and the deductions of Lobeck 'Path. Prol.' pp. 135, 279, 'Elem.' i. 502. *μεγαίρειν*, 'grudge,' we may with Buttmann 'Lexil.' i. 259 derive from the st. *μεγαρο*, identical with *μεγαλο* (cp. *τὸ μέγαρον*)[1].

D. Sporadic changes of the Spirants.

Nothing is so characteristic of the Greek phonetic system as the aversion to the spirants. Of all the consonants these are exposed to the most numerous and various changes. Since the change of an initial *σ* to the spiritus asper and the expulsion of *σ* between two vowels, the latter of which processes was probably preceded by the former, have been treated by us as regular phenomena, there remain only the two spirants *v* and

[1] Bechtel (see note on p. 553) makes assimilation or dissimilation decide between *r* and *l* in polysyllables. Perhaps it was so with the Gk. suffixes *ρο* and *λο* (Lucian '*jud. voc.*' § 4, gives *κεφαλαργία* for *κεφαλαλγία*). But this is not saying much. No change in fact defies rules so much as that just discussed.

j. The gradual obliteration of both of them—which finds its counterpart in the expulsion of the initial *j* and *v* in the Scandinavian languages—distinguishes Greek essentially from the Italian languages, though there is no doubt that there are at any rate tendencies toward this expulsion in Latin, in the middle of words.

I here call these sounds *spirants*, though I am quite aware that the letters *v* (*w*) and *j*—to say nothing of possible further differences—stand for two different kinds of sounds. Of these two kinds it is only that which occurs in German to which the physiological phoneticians (e.g. Sievers p. 80) will allow the term spirant to be applied. The *w* and *j* which come near
559 to a short *u* and *i*, and which are sounded, e.g. in the English *wild*, *yes*, they call *semi-vowels*. Ebel ('Ztschr.' xiii. 272) has already called attention to the importance of this distinction for the comparative study of language, and the same has been done still more markedly in the case of *j* by G. Schulze in his essay 'Ueber das Verhältniss des ζ zu den entsprechenden Lauten der verwandten Sprachen' Gött. 1867. I too regard this distinction as so far important in Greek phonetics, that it serves to explain the great variety that is to be seen in the later representatives of ϝ and *j*. But even in the face of Brugman's exhortations ('Forschungen' i. 4), I am still of opinion that it is not practicable in the case of Greek to make a complete separation between the spirant and the semi-vowel. I shall often have to recur to this subject when dealing with particular questions, and will only refer at present to the statement of my views at 'Stud.' ii. 180 ff. I will not deny that certain general expressions to be found there, in condemnation of the inferring the existence of certain sounds in remote periods of language, have been met and refuted by certain recent investigations. But considering how insignificant the difference is between the semi-vowel and the corresponding spirant, it seems to me all but inconceivable that the provinces of the two sounds should, as time went on, have remained entirely distinct. So that until some one shows that the facts of the case—and it is with these that we have always first of all to concern ourselves—can be better explained on the opposite hypothesis, I believe that there is less

danger in the course which I have adopted than in upholding what is a purely theoretical distinction.

The labial spirant is one of the recognized sounds of the Greek language, and in the oldest written Greek it was denoted by a letter which was generally current. The evidence of the ϝ derived from inscriptions within various ramifications of the main Aeolic and Doric dialects, has been diligently collected by Savelsberg in his series of programmes 'De digammo ejusque immutationibus' (Aquisgrani 1854–1866), and a large number of instances have been discovered since. Even the comparatively recent Epirot inscriptions published by Karapanos ('Dodone et ses ruines' Paris 1878) are not without their contributions: e.g. ϝοικέοιεν (vi. 5). The digamma in Homer and Hesiod has formed the subject of most diligent investigations. For Homer we can now refer, particularly for the facts of the case, to the Swedish scholar Olaus Wilhelm Knös's 'De digammo Homerico quaestiones' (Upsaliae 1872, 1873, 1879), a work which is a model of accuracy. — As to the view which is to be taken of the Proteus-like Homeric digamma there are three conflicting theories. One theory, regarding Homer as the oldest of poets, expects 560
to find the ϝ as a living sound in all the words to which it belongs, and makes it the business of textual criticism, in the face of almost insuperable difficulties, to restore the sound even where the text shows not a trace of it. On this theory inconsistency is substantially the result of a faulty tradition. Its representatives are among textual critics—though with various modifications of view—Bentley, I. Bekker, more lately Nauck and Cobet, among grammarians (if I have understood him aright) Leo Meyer. — The second theory assumes that by the time when the Homeric poems took in the main their present form, the sound of the ϝ was no longer to be heard among the Ionians, but had survived in a definite set of words as one of Homer's many antiquarianisms from an earlier period of Epic poetry, but that notwithstanding the old tradition which prescribed its use, it was always possible to follow a newer fashion and leave it out. To this theory I have always given my adherence. The grounds for it have been thoroughly expounded by Leskien in his disserta-

tion 'Rationem quam I. Bekker in restituendo digammo secutus est examinavit A. Leskien' Leipz. Brockhaus, 1866.—The third theory is the outcome of W. Hartel's extremely careful and clever 'Homerische Studien,' and more particularly of the third part of the work (Vienna 1874). Hartel agrees with the representatives of the first theory, in regarding the *F* as a living sound in Homer, but differs from them in this, that he does not ascribe the inconsistencies revealed by the metre to imperfections in the tradition, but to the twofold nature of the sound itself, more particularly to the fact that it vacillates between consonant and vowel. He holds that though as consonant the *F* can obviate a hiatus, make a vowel long by position, or shield a preceding long vowel from being shortened, as a vowel of insignificant effect it can produce before it elision, neglect of 'position' length, and even the shortening of preceding long vowels and diphthongs. His view is expounded with great learning and ability and has gained many adherents. This is not the place to discuss it at length: all the less because a fourth and concluding part of Hartel's work is expected to appear. I will only direct attention to what I hold to be two weak points in the theory. In the list of arguments adduced by Hartel an important part is played by the treatment of final diphthongs which precede vowels. He maintains that in such a collocation of words as ἔσχατοι ἀνδρῶν the ι has become the semi-vowel *j*, and many scholars agree with him. But when he further regards the ου,
561 e.g. in ἤν που ἀκούσῃ, as a true diphthong and consequently presumes the existence of an ἤν ποF ἀκούσῃ, he does so in the face of the fact that such an ου, particularly that of the gen. sing.—e.g. θεοῦ ἔκλυες αὐδήν—was originally, as is to be seen from its oldest written form ο, attested abundantly by inscriptions, and therefore certainly in Homer, no diphthong at all. In this way the instances on which Hartel founds his reckoning are materially diminished in number. The second point is this: that to this insignificant vowel which, though counting for nothing in the scansion, he regards as one of the two main phases of the digamma, Hartel attributes the power not only of expelling by elision a short pure vowel—e.g. περὶ δ' Fέργα (or δ' ὐέργα)—but also of shortening a preceding final

long vowel or diphthong—e.g. πρό ϝοι ϝείπομεν (or πρό ϝοι ὐείπομεν). If we follow Hartel in assuming that a shortened ϝοι was pronounced ϝοj we actually arrive at the series πρό ϝοj ὐείπομεν in which the second syllable, though it taxes to the utmost our power of articulation, is a short syllable after all. Such a congeries of sounds I cannot conceive to have been actually spoken, and remain convinced, as before, that the poets who made such verses, did not, in saying them, sound the digamma at all.

Under any circumstances we are forced to consider the loss of the ϝ as only gradually brought about, and to the historian of phonetic changes it would seem nothing short of miraculous if, the Homeric poems, which in so many other cases show the new and old side by side, should in this case have preserved the old alone. The inscriptions from districts in which the ϝ survived the longest are by no means invariably consistent. Though the Heraclean tables (Meister 'Stud.' iv. 403 ff.) preserve the ϝ in ϝέτος they have lost it in πενταέτηρίδα, they give it in ϝίκατι and ϝέξ, but omit it in ἕκαστος, in which word the only evidence we find for the ϝ is among the Locrians, as also in ϝέργον and the cognate words in which there is elsewhere such abundant evidence of its existence. The Locrian dialect (Allen 'Stud.' iii. 246) in spite of its ϝαστός, ϝέτος, ϝεϝαδηρότα, αἰϝεί has ξένος (Corcyr. ξένϝος). The case is the same in other dialects and places. Clemm, in his 'Kritische Beiträge zur Lehre vom Digamma' ('Stud.' ix. 439), arrives at the conclusion with respect to Boeotian Greek 'that the monuments furnish no evidence of a consistent procedure within any fixed period.' Post-Homeric poetry shows less and less of the effects of the sound, the later we get. With regard to Hesiod, Flach stated the case too strongly, but Rzach, Clemm, and others have now given us the right mean. For Pindar we can now refer in particular to Hartel ('Homer. Stud.' iii. 79), for the Iambic and Elegiac poets to Renner ('Stud.' i. 1, 147 ff.). The Homeric hymns, for which Windisch 562
has given us trustworthy materials, are less important linguistically, as being the work of imitators. The effect of the ϝ which survived longest everywhere was its power of rendering a hiatus admissible. For this purpose it is by no means

necessary to assume a still living *ϝ*. The Sardinian dialect of Italian (Terrier Poncel 'Du Langage' Paris 1867 p. 74) has lost the *v* of *veste* (*vesti-s*). Though the word is pronounced *este*, in *sa este* (=*ipsam vestem*) 'the garment,' the *a* is secured from elision by the fact that a *v* had once begun the word. In a similar way the *h* survives in certain French words: *le héros* but *l'honneur*, though the *h* is no longer sounded in any word. In later periods of language we often encounter the shadow of something which has long since vanished.

I have thought it necessary to make these remarks on the preservation of the digamma by way of preface to the ensuing investigations and the changes which this sound has undergone. For to a certain extent, these latter can only be understood by remembering that the sound we are attempting to catch, is one which had begun to die when we first find it, was dying gradually ever since, but was never completely forgotten. It is not always possible to draw the line precisely between the actual change of the spoken sound and the varieties of methods taken to denote it in writing, after its old character had gone out of use.

1. Transformations of the digamma.

Dionysius of Halicarnassus, in a passage ('Antiqu.' i. 20) which has been discussed ad nauseam, defines the sound of the *ϝ* as *ου συλλαβὴ ἑνὶ στοιχείῳ γραφομένη*, while according to Bekker 'Anecd.' 777, *ϝ* had among the Aeolians the sound of *οι* and *ου*. But we are no doubt to understand by *οι* its later pronunciation in which it does not differ from *υ*, and accordingly to give *ü* and *u* as the sounds which that grammarian assigns to *ϝ*. We have no means of determining how far this information depends on observation of the living sound of the letter, but it is beyond a doubt that it still survived in some Greek dialects as late as the last centuries before the Christian era. The fact that in Latin the *u consonans* has no special letter to represent it can only be explained by supposing that at the time of the establishment of the Latin alphabet it very nearly resembled the *u vocalis*. Even for later Latin Corssen i². 323 assigns to the *v*, at all events when between vowels, a pronunciation very similar to

that of the English *w*. Since we find in the dialect of the Vedas a constant interchange[1] between *u* and *v*—as also between *j* and *i*—we shall no doubt be right in assigning to 563
this spirant in the earliest periods of the languages generally, a semivocalic sound differing but minutely from that of the corresponding vowel. This is the result arrived at also by Rumpelt ('Deutsche Gramm.' i. 320 ff.) in reference to the Goth. *v* and the later *w* in the Teutonic family (cp. Schleicher 'Deutsche Sprache' 155). This spirant, which is denoted in modern High German by *w*, clearly an easier sound than that of the English *w*, is certainly of later date. But there are variations of the *F* which presuppose this spirant. Bentley's view, that the digamma was identical with the English *w*, adopted also by Pohl 'De digammate' p. 12, has in fact much probability. If this was the case we shall not be surprised to find an Indo-Germanic *v* represented in Greek by vowels. According to the accounts of the old grammarians, as we saw, the sound which comes closest to the *F* is that of *ου*, which, for the period of Greek of which we have historical testimony, cannot be regarded as a diphthong in anything but its written form. *ου* represents *F* not only in numerous Roman proper names: *Οὐέλια*, *Οὐάῤῥων*, *Οὐενούσια* (Corssen i². 311), where the alternative *β* for *οὐ* shows a certain amount of vacillation[2] in the sound, but also in the interjections *οὐά* or *οὐᾶ* = Lat. *vah*, and *οὐαί* = Lat. *vae*. It is true that these two words do not occur before the Alexandrian age, but it is not to be supposed for a moment that they were borrowed from Latin. In Aeschylus 'Pers.' 115, 121 we find *ὀά* corresponding in meaning to the later *οὐαί*, i.e. as a lament. We shall not be wrong in assigning to the *οὐ* and the *ὀ* in these two words one and the same sound, differing but little from that of the labial semi-consonant. The Aeschylean form *ὀά* (cp. *ὠαιαί*, *ὠοιοί* Bekk. 'Anecd.' 538) bears the same relation to the later *οὐαί* that *Ὀάδμων*, as Polybius ii. 20, 2 calls lake Vadimo, bears to

[1] Sievers 'Zur Accent und Lautlehre der Germanischen Sprachen' (Halle 1878) p. 89 ff. gives for this a fixed law (though admitting some exceptions), based on the quantity of the preceding syllable.

[2] [But see the more exact discussion in Roby's 'Latin Grammar' vol. i. pp. xxxvi–xl.]

the later transliteration of the Latin *v* by *ov*. Thus this same *ὀά* will furnish us with a bridge, over which we can proceed to the demonstration that *ϝ* has been preserved in a variety of vowels.

a. Digamma changed to a vowel.

We have first to consider the vowels *υ* and *ο*, which approach most nearly to *ϝ*.

1. *υ* as the representative of *ϝ*.

Here we must distinguish between two cases. There are instances, though their number is limited, in which a solitary
564 *υ* appears in the place of an old *ϝ*; and then again we find more frequently such a *υ* coalescing with preceding vowels to form diphthongs. Both phenomena have already been often noticed and among later writers, especially by Pohl 'De digammate' Pars i. Breslau 1854 p. 13, by Savelsberg 'De digammo' Aquisgrani 1854 ff., by Christ 191, and especially by Hartel in his 'Homer. Stud.' iii. 21 ff. There are the following six certain instances of initial *υ* = *ϝ*:

ὑάλεται· σκωληκιᾷ, ὑάλη· σκώληξ, i.e. 'worm' (Hesych.). We shall no doubt be right in giving *ϝαλ* as the root, i.e. the *ϝαλ*, *ϝελ* (No. 527) which means 'roll,' 'writhe,' whence both the worms in dead bodies, the *αἰόλαι εὐλαί* (*X* 509), and *ἕλ-μι-ς* 'tape-worm' get their names. While the stem *εὐλα* with prefixed *ἐ* stands for *ἐ-ϝλα*, in *ὑαλα* the initial *ϝ* survives in the form of *υ*. The difference is probably one of dialect, for Hesych. also gives the gloss *εὐλάζει· σκωληκιᾷ. ὑάλ-ε-ται* however is no denominative like *σκωληκιᾶν· εὐλάζειν*, and *vermiculari* of like meaning, but must be regarded as a primitive verb in the sense of 'swarms.'

'*Υέλη* is the name given by Herodotus i. 167 to the town of lower Italy whose later name *Οὐέλια* is mentioned by Dion. Hal. 'Antiqu.' i. 20. Since the town was founded by the Phocaeans, it follows that at the time of their settlement there the *ϝ* had not as yet entirely disappeared as is the case in the later form *'Ελέα*. There are coins too on which this form with the initial *υ* appears. We had the stemword of this name in *ϝέλος* 'low ground' and *ϝαλεῖοι* = *'Ηλεῖοι* (No. 530).

ὕεσις· (MS. *ὕεσι*) *στολή Πάφιοι, ὑεστάκα· ἱματισμός* Hesych. (presumably the correct reading is *ἱματισμόν*, so that we should have to assume a nom. *ὑεσταξ* on the analogy of *λίθαξ, ἕρμαξ*. Cp. Leo Meyer 'Vgl. Gr.' ii. 513) apparently belong to the rt. *Fεc* 'clothe,' which has retained so many other traces of the *F* (No. 565). Cp. Schmidt 'Ztschr.' ix. 306. The reading *ὕεστις* (= *vestis*) recommended by Kuhn ('Ztschr.' x. 231) does not agree with the alphabetical arrangement.

υἰήν· τὴν ἄμπελον, υἱόν· ἀναδενδράδα, i. e. 'wild vine,' also in Hesychius, are fresh witnesses to the fact that *οἶνο-ς* and *vīnu-m* belong to the rt. *vi*, *viere* and *vī-ti-s* (No. 594). The fundamental meaning of all these words was 'tendril,' 'plant with tendrils.' The same root occurs in another application in the Lacedaemonian *βειέλοπες* for which the grammarians give the meaning *ἱμάντες* (Ahrens 'Dor.' 47), cp. *vīmen*.

ὑίλη· ὅμηλος, i. e. *ὅμιλος* (Hesych.) belongs to the rt. *Fελ*, and corresponds exactly to the Tarentine *βείλα* = *ἴλη* 'troop,' preserved in *βειλαρμοστάς· βειλάρχας* (Hesych.) (No. 660).

ὑρειγαλέον· διερρωγός, so M. Schmidt reads, following the 565
MS. of Hesych., and regarding the word as the same as **Fρηγαλέος*. In that case *ει* for *η* would be Boeotian. The Homeric *ῥωγαλέον* is explained, in its proper place in Hesychius, just in the same way by *διεῤῥωγότα*. There is no doubt whatever about the *F* in the rt. *Fραγ* (p. 530). Here then we have a *F* changed to *υ* even before a consonant.

Christ adds *ὕαλος* 'glass' and *ὑανία*. He compares the former with the Skt. *svaḷ*, but the 'Pet. Dict.' knows nothing of this root. Another conjecture about the word will be found at No. 604. — With *ὑᾱνία* the case is still worse; it is a Doric by-form of *ὑηνία*, which we cannot help connecting with *ὑηνός* 'swinish,' and consequently with *ὗ-ς* (No. 579). The meaning 'disturbance,' 'scuffle' (Hesych. *τύρβη, μάχη*) is given for *συηνία* as well (*ταραχή, ἀηδία, ἀπὸ τῶν συῶν* Hesych.). Hence it can have nothing to do with the Skt. *van*, which in the meaning of 'occidere,' 'perdere' does not occur at all in the 'Pet. Dict.'

Hartel 'Hom. Stud.' iii. 32 conjectures that for *ἁλόντε* *E* 487, in which the long *α* stands quite by itself as compared with numerous forms like *ἅλοῦσα, ἅλῶναι*, etc., we ought to write *ὑαλόντε*. This too would be quite an isolated form. La Roche

notices other attempts at removing the anomaly. It might be worth while to suggest *ἑαλόντε*; cp. *ἕεδνα*, *ἑείκοσι*.

In the middle of a word it is sometimes hard to decide at once whether the vowel or the consonant is the older, e. g. in the word *κυ-έ-ω*, *κυ-ί-σκ-ω* (No. 79) by the side of the Skt. *çvájā-mi*, in *κύων* = *çvā* (No. 84). For the latter word we find in the Vedas the form *çuā* with the vowel. In both cases we must start with the vowel which Gk. has preserved throughout, Skt. only in part. — *εἰλύ-ω* (No. 527) corresponds to the Lat. *volv-o*, and the Goth. *valv-jan*. As in this word we regarded the spirant as a broken reduplication, we must here derive the *υ* from an earlier *ϝ*. Meanwhile it is always possible to regard the *υ* as due to a union of *ϝ* with the *j* which we have before us as a stem-forming element in the Goth. *val-v-ja-n*. — As in Latin we can hardly distinguish between the suffixes *-uo*, *-ua*, and *-vo*, *-va*, while we must compare both forms with the Skt. *-va* (Lindner 'Altind. Nominalbildung' 105, 145), we should expect its representative in Greek in the form, among others, of *-vo*. This suffix, however, is extremely rare, though it seems to be present in the form *ἰδύοι*, *βίδυοι* or *βίδεοι*, common to early Attic and Lacedaemonian, the name of certain magistrates in Sparta (Ahrens 'Dor.' 47) and also alike of witnesses and of judges in criminal cases in Attica. Solon is mentioned as an authority for the word (cp. No. 282). The Attic form vacillates between *ἰδύοι* and *ἰδυῖοι* (Hesych. Phot., Aristoph. 'Daetal.' fr. 1 Dind. after Meineke). Since Hesych. expressly adds *συνίστορες* as his explanation, and
566 we find *ἵστωρ* (with spir. asp. according to Herodian) in Homer in the same sense (*Σ* 501, *Ψ* 486), it is unmistakable that *ϝιδ* is the root, and the suffix is no doubt related to that of the Skt. *vid-vā́-s* 'knowing,' and the Goth. *veit-vôd-s* 'witness.' *ἰδυ-ῖο-ς* would then be due to expansion by the suffix *-ιο*. But if we ought to regard *ἰδυ-ῖο-ι* as the older form, this might be derived from the same shorter participial stem which underlies the fem. *ἰδ-υῖα* (= Skt. *vidush-ī*). Cp. *υἱό-ς* No. 605.

It oftener happens that the *υ* which has the same sound as a *ϝ* unites with preceding vowels to form diphthongs. In the Aeolic dialect of Lesbos this became the rule, though not without exceptions (Ahrens 37). While in the case of forms

like *ναῦ-ος*, *αὔελλαι*, *αὔως* the same remark holds, as was made above, i. e. that it is a question which was the earlier, the *F* or the *υ*, on the other hand where an originally initial digamma has been placed by composition in the middle of a word, we shall unquestionably consider the consonant to be the older sound, e. g. in *α-ὑιδ-ε-τοῦ* (= *ἀ-Fιδ-ε-τοῦ*)· *ἀφανοῦς* (Hesych.), *αὐετῆ* (= *ἀ-Fετῆ*)· *τὸν αὐτοετῆ* (Hesych. cp. *ἀετέα*), in which respect reference may be made to Nos. 282, 210. So too in *αὔρηκτος* = *ἀ-Fρηκτο-ς*, in *ε-ὑάλω-κεν* (No. 660) and *ε-ὑέθω-κεν* (No. 305). Without entering more closely into the consideration of these forms, whether vouched for as Aeolic or assumed to be such, I wish to bring forward here only those words belonging to Homeric or Attic Greek in which the same change may be perceived. To this number belongs the much discussed *αὐέρυσαν*. I agree with Döderlein, who ('Gloss.' 2290), like others before him, finds in the *ἀ* the preposition *ἀνά*. After the elision of the *α* the *ἀν* became *ἀ* in accordance with a tendency often shown in Greek, and universally in the case of the privative *ἀν*. The meaning 'draw up,' 'upwards,' or 'back' suits the context completely. — *αὐίαχοι* *N* 41 was explained by Aristarchus to mean 'much shouting,' that the Trojans might appear here in the same character as at *Γ* 2. An unbiassed view of the passage will give the preference to the meaning 'noiseless,' i. e. will regard *ἀ* as a negative prefix. A somewhat different view is expressed by Bekker 'Homer. Blätter' 136. Cp. however Clemm 'Stud.' viii. 92. — On *αὔλαξ* in its relation to the rt. *Fελκ* and the by-forms *ὦλαξ*, *ὦλξ*, *ἄλοξ* cp. No. 22. — The name of the Sicilian castle '*Ελαύια* is connected by Pott 'Personennamen' 383 with *ἐλαία oliva* (No. 528). — *καλαῦροψ* = *καλαFροψ* was discussed at No. 513. On this word cp. also Hoffmann 'Quaest. Hom.' i. p. 138. The form *καλάβροψ* has but little authority. — *καυάξαις* in Hesiod *Ἔργα* 666, 693 is generally and rightly explained to be for *κατ-Faξα-ι-ς*. The rt. *Far* (*ἄγνυμι*, *ἔᾱγα* p. 542) bears most decided traces of a digamma. The mutilation of *κατά* to a simple 567
κα is admirably illustrated by Giese ('Aeol. Dial.' 254) by *κάζελε*, Arcad. for *κατ-έ-βαλε* (Hesych.), and *κα-βαίνω* (Alcman). Baunack 'Stud.' x. 109 ff. discusses the point thoroughly, and furnishes numerous fresh instances from inscriptions.

— The various names of the sea-bird called *καύαξ*, *καύηξ*, *καύης*, but also *κῆυξ* (or *κηῦξ*) and *κήξ*, discussed by Lobeck 'Paralipp.' 101 f. are all to be explained by the primary form *καϝ-αξ*. Fick i³. 534 conjectures *ku* 'scream,' to which *κωκύω* (No. 66) belongs, as the root. — The Lacedaemonian proper name *Λαναγήτα* 'C. I.' 1466 is remarkable as being the solitary example to show that in Doric too *ϝ* became *υ* (Ahrens 'Dor.' 51). On the stem *λᾱϝο* cp. No. 535. — The Homeric *ταλαύρῑνο-ς* may be brought under this head in two ways. We may regard the first part of the word as the adj. *ταλαός*, which on the analogy of *κεραϝό-ς* = *cervu-s* (No. 50) came from *ταλα-ϝό-ς*. In this view Döderlein ('Gl.' 2380) translates the word *starkledern* ('strongly leathered'). But the 'strongly leathered warrior' (*E* 289) hardly sounds right. Or we may follow Hoffmann (i. 137) and Savelsberg (p. 16), in dividing the word *ταλα-ύρινο-ς* and taking for the first part of it the verbal stem *ταλα* (cp. *ταλα-εργό-ς*) in the sense of 'bear' (No. 236), and *ϝρῑνο* for the second. We thus get the more suitable meaning of 'shield-carrying.' The *ϝ* is here supported especially by the by-form *γρῖνο-ς* (Hesych.). Cp. OIr. *fern* 'shield,' st. *varna*. — The nearest parallel to this word is *ταναύ-ποδ-ες* (*ι* 464) 'stretching out the feet' (Döderlein 215, Hugo Weber 'Etymol. Unters.' 63), in which accordingly *ταναυ-* stands for *ταναϝο*. — *ταῦρο-ς* (No. 232) corresponds exactly, as we saw, to the Zd. *çtaora*. — The diphthong in *ἀ-μαυρό-ς* 'dark' is probably to be explained by metathesis, if we take it to be for *ἀ-μαρ-ϝο-ς*. There is a rt. *μαρ*, which occurs in *μαρ-μαίρειν* and *μαρ-μαρ-ύσσειν* 'glisten,' in *Μαῖρα* the name of the dog-star, in *μαρ-μάρ-εο-ς* 'glistening,' and perchance too in *μαρ-ίλη* 'charcoal,' 'charcoal-dust.' An abundance of combinations with this root are given by Grassmann 'Ztschr.' xvi. 164 and especially by Corssen i². 404. It is clear that in Homer *μάρ-μαρ-ο-ς* = *mar-mor* meant 'rock of any kind,' and hence Pictet i¹. 132 compares the Skt. *mṛn-maru-s* 'stone,' 'rock,' a word to which a (?) is attached in the 'Pet. Dict.' But since in later writers the word is used particularly for *λευκὸς λίθος*, it not improbably belongs here. I formerly derived *ἀ-μαυρ-ό-ς* from this root with an *α* privative. But two things are against this: the word *μαῦρος* (*μαῦρον· ἀμαυρόν, ἀσθενές*, Hesych.).

which means the same as *ἀμαυρός*, and from which the denominative *μαυροῦν* occurs in Hesiod ('Opp.' 325), Pindar and Aeschylus ('Ag.' 296) in the sense of 'darken;' and secondly 568
the accent. The *α* must be prothetic like that in *ἀμείβω*, *ἀμύνω* (cp. below p. 724), and the stem-syllable *μαρ* must itself contain the notion 'dark.' Consequently the words can hardly have anything to do with *μαρ* 'glitter.' Fick i³. 718 connects them with the OHG. *maro, marawêr* 'rotten,' 'weak' of which a hint is given in the translation of *μαῦρον* by *ἀσθενές*. The meaning 'blind,' 'dark' would then be secondary. It is also possible, however, that it was from this rt. *mar* that was formed by expansion that rt. *mark* which occurs in the Mod. Gk. *μουρκίζει* 'it is twilight,' and in the much discussed Homeric *ἀμολγό-ς* 'darkness' (*νυκτὸς ἀμολγῷ*) already noticed on p. 532 (Jolly after Deffner Fleckeisen's 'Jahrb.' 1874 p. 708). For this *mark* we find in ChSl. the phonetically corresponding *mrak-ŭ* 'caligo,' but there is no such correspondence in the sounds of the ON. *myrk-r* 'dark' which many have put along with it. It appeared doubtful at No. 351 whether *παῦρο-ς* bears this same relation to *par-vu-s*.

In a precisely similar way the diphthong *ευ* arises in the following words. *εὕαδεν* was noticed under the rt. ἁδ (No. 252). — Inasmuch as the augment here unites with the initial digamma to form a diphthong, this form finds its nearest analogies in the Aeolian *εὐράγ-η* = *ἐ-ϝραγ-η* ('Ahr.' 37) and in the reduplicated forms *εὐάλωκεν* (No. 660), *εὐέθωκεν* (No. 305). — *εὕληρα* 'reins' (Ψ 481) is also Homeric—Hesych. calls it Ionic,—and it has the by-forms *αὔληρον*, *ἄβληρον* (Hesych.). Since the word is explained not only by *ἡνίον*, but also by *ἱμάς*, *ϝελ* 'wind' (No. 527) is probably the root, and we must start from *ἐ-ϝλη-ρο-ν*; just so *τροπός* arrives from *τρέπω* at the like meaning. I regard the Lat. *lō-ru-m* as identical with this; it can be referred to a form *vlō-ru-m* (cp. *lupu-s* ChSl. *vlŭk-ŭ* No. 89 and Corssen i². 312; cp. also *volv-o, volū-cru-m, volū-men*). The Graeco-Italic primary form would be *vlārom*. — That *λεύ-ειν* 'stone' and the related words come from the stem *λᾱϝ* has been shown at p. 553. — We saw at No. 434 that the root of *νεῦρο-ν, νευρά* was *snar*, and the Latin *ner-vu-s* showed us that the suffix was *-ϝο*. Here as in *ἀμαυρό-ς* the *ϝ*

is sounded by anticipation as a vowel in the preceding syllable (cp. below p. 680).

Again *ου*, although in sound no doubt identical with the simple vowel *ū*, is still etymologically often to be regarded as a true diphthong, which is interchanged with *οϝ*. We have seen that as the stem *Ζευ* corresponds to the Skt. *Djav*, Lat. *Jov*, so the stem *βου* (No. 644) the by-form of *βοϝ*, corresponds to the Skt. *gav*, Lat. *bov*. This is one of the cases in which it is impossible to decide whether the consonant or the vowel was the earlier. *βούεσσι* is found even on the Boeotian in-
569 scription 'C. I.' No. 1569 l. 38. — The same is the case with *ἀκού-ω* whose relation to the rt. κοϝ was discussed at p. 100, and with the Epic and Aeolic *ἀκουή*, *ἀκούα*, from which we get to the Attic *ἀκοή* by way of *ἀκοϝη*, just as we get from the pres. *ἀκούω* to the perf. *ἀκήκο-α* by way of *ἀκηκοϝα*. — The forms *γοῦν-α*, *δοῦρ-α* and the related words presuppose *γονυ-α* = *genu-α*, *δορυ-α*, then *γονϝ-α*, *δορϝ-α*. (Here the *ου* comes apparently from compensatory lengthening.) As witness to this we have especially the Thessalian proper name *Γόννοι* (cp. *Γονόεσσα*, *Γονεῖς*, *Genua*), which must have been developed by assimilation from *Γονϝοι*, like the Aeolic *φθέρρω*, *κτέννω* from *φθερjω*, *κτενjω*. Cp. Nos. 137, 275. — The relation of *λού-ω* to the Lat. *lav-o* has been sufficiently discussed at No. 547. Cp. Hartel 'Hom. Stud.' iii. 37. Forms like *λό-ε-τρο-ν* cannot be explained without a Greek λοϝ. — The later by-form *οὖο-ν* for the Attic *ὄο-ν* *sorbum*, 'service-berry' is likewise to be explained by supposing a form *ὀϝο-ν* to have lived in the mouth of the common people. The derivation of the word was discussed at No. 596. — The strange form *προυσελεῖν* (Aesch. 'Prom.' 435, Aristoph. 'Ran.' 730) with the meaning 'abuse,' 'illtreat' Buttmann ('Lexil.' ii. 159) tried to explain by supposing a *ϝ* to have coalesced with the preposition. According to the latest complete discussion of the question, that by Clemm in the 'Acta soc. philol. Lips.' i. 77 ff., this explanation is hardly tenable.

With regard to this *υ*, preserved in diphthongs and sprung from *ϝ*, some doubt arises as to whether in its pronunciation it was a vowel or, before vowels at least, a consonant. Ahrens 'Aeol.' 39 decides on good grounds in favour of a vowel pro-

nunciation as far as the Aeolic dialect is concerned. Savelsberg p. 16 assumes a consonantal pronunciation for the Homeric forms. With this view Bekker writes ἀϝέρυσαν, ἀϝίαχοι, ἔϝαδεν, though before consonants he gives υ: e.g. εὔληρα, καλαῦροψ, and in the 'Hom. Blätter' he assumes a vowel pronunciation, at any rate for ἔϝαδεν, in spite of writing it with the ϝ. But if the change of ϝ to υ is undeniable in general, is it not best to take the metre for our guide? Now the metre points everywhere in Homer to a vowel pronunciation, and in Pindar in the case of αὐάτα with a short first syllable ('Pyth.' ii. 28, iii. 24) to the consonantal one. For the correptio diphthongi in the latter case, which Ahrens holds possible, is essentially the same as the decomposition of αυ into αϝ. Tycho Mommsen even writes ἀϝάταν. So too it can hardly be doubted that in Alcaeus 'Fr.' 41 we ought to pronounce ἔγχεϝε, while in 'Fr.' 36 (καδ δὲ χευάτω μύρον ἅδυ κατ τῶ στήθεος ἄμμι) the metre requires the diphthong. In Homer we find side by side ἔχευαν and ἔχεαν, ἀλεύασθαι and ἀλέασθαι, δεύομαι, δευῆσαι (cp. ἀ-δευ-τό-ν· οὔ οὐκ ἄν τις ἐπιδεηθείη Hesych.), and, as Hartel with Leo Meyer ('Ztschr.' xiv. 88) assumes Σ 10 ἐμεῦ δ' ἐδεύησεν, i. e. ἐδέϝησεν. Under the same head fall forms like ἐπισκεάζειν, σκεοθήκας ('C. I.' 1838, l. 6, 12), which presuppose the pronunciation of the diphthongs αυ and ευ which subsequently became the general one. 570

Whereas in the cases hitherto discussed, υ often usurps the place of ϝ, the converse of this sometimes happens. In the isolated Ναϝπακτίων, by the side of the regular Ναύπακτος, on the Lokrian tablet of Naupaktos l. 16 ('Stud.' ii. 445) we have a remarkable evidence of this, as early it seems as the fourth century. Such an instance also throws some light on the Oscan *av* (*tesavrom*) and *ov* (*tovta*), which are without doubt as certainly diphthongal as the Old-Lat. *ou* before consonants.

Finally we have to consider the words in which the labial semi-vowel presents itself by the side of the corresponding vowel. Where the vowel comes first we must regard ϝ as a sound developed involuntarily before a vowel as in the Skt. *ba-bhū́-v-a* for **ba-bhū-a*(*fū-ī*). So in Γαρυϝόνης on a vase from Volci ('C. I. G.' 7582), ἀριστεύϝοντα on the Corcyrean

inscription of Arniadas (Cauer's delectus No. 23), l. 3, *Βακεύϝᾳ* (Boeotian, 'C. I. G.' 1639). Perhaps Hartel is right in assuming (p. 38) the converse of this, i. e. *ϝυ* for *υ* in the case of the much discussed *τοῦ ἀϝυτοῦ* on the inscription from Naxos 'C. I. G.' 10) in spite of Kirchhoff 'Stud. z. G. d. Alphab.[3]' 73. The dialect which shows most such developements, both of *ϝ* from *υ*, and also of *υ* from *ϝ*, is the Cyprian. Thus we find *κατεσκεύϝαζε*, *Εὐϝαγόρω* (Deecke-Siegismund 'Stud.' vii. 222), which have as much right to be called midway forms between *σκευάζω* and **σκεϝαζω* (written *σκεάζω*) as conversely *εὐϝρητάσατυ* (tablet of Idalion l. 4) a midway form between *ἐϝρητασατυ* (ibid. l. 14) and a possible Lesbian **εὐρητάσατο* (rt. *ϝερ*, *ϝρε* 'speak') which the analogy of *εὐράγη* would lead us to expect. In the latter case a vowel analogous to the *ϝ* attached itself naturally to the *ε*. The variety in the way of writing the word points to the fact that *υ* can hardly have been a fully developed sound, but that we have here a case where affections of spoken sounds were imperfectly rendered in writing.

2. *ο* or *ω* as a representative of the *ϝ*.

The change of *ϝ* into *ο* or *ω* has at first sight the appearance of an anomaly, and for this very reason my assumption of this change has met with strenuous opposition especially on the
571 part of Hugo Weber ('Jahn's Jahrb.' 1863 p. 602, 1865 p. 550) and of Voretzsch in his work 'De inscriptione Cretensi' so often referred to. Hugo Weber's objections culminate in the words: 'since it appears that in Greek a *υ*, i. e. *u*, has arisen from an old *ο*, *and not ο from υ*, the supposition of a change of *υ* or *ϝ* to *ο* is by this one fact shown to be baseless.' There is an error here. It is true that *υ* is etymologically = *u*, but phonetically it is not. There can be no question that *υ* arose in a comparatively late period of language from *u* by attenuation, and it is true that *υ* has become the normal representative of the older *u*, and no one would think of expecting an ordinary *ο* as the representative of this favourite sound. But the versatility of sounds rebels here, as elsewhere, against the narrow boundaries within which H. Weber wants to confine it. Even after the introduction of the later alphabet the sound *u* was never expressed by the originally diphthongal *ου*

with complete consistency. In countless instances the stonemasons still had recourse to *o*, which, especially in the Ionic dialect, must have come uncommonly close to *ου* in its pronunciation. Otherwise how are we to account for the contraction of *οο*, *οε*, and *εο* to *ου*? For Greek dialects we may conjecture that *υ* retained more often the sound of *u*, and this is certainly the case, as Ahrens has shown, with Cyprian, a fact for which the above-mentioned phonetic developements have already prepared us. The change of an old *u* to *o* in this very dialect has been established, e. g. in *πέποσμαι* = *πέπυσμαι*, *ἐράτοθεν* = *ἐρήτυθεν* (Mor. Schmidt 'Ztschr.' ix. 366). That is to say, instead of the attenuation of the old *u* to *ü* that is customary in the other dialects, a different pronunciation is here introduced, which was at any rate very near to that of the *o*. — For the diphthongs *αυ* and *ευ* (the subsequent change of which to *αυ* and *ευ* necessarily presupposes an *au*, *eu* and not *aü* *eü*) we find the letters *εο*, and this *εο* the metre sometimes proves to be a true diphthong, e. g. *ἐμ φάρεσι λεοκοῖς* at the close of a hexameter (Keil 'Rhein. Mus.' xix. 258), and on the same inscription from Priene Keil fills up a gap as follows: ΝΑ(Ο)ΛΟΧΟΝ. On Samian inscriptions *αυ* and *ευ* are consistently written *αο* and *εο* (Carl Curtius 'Inschr. z. Gesch. v. Samos' Lübeck 1877 p. 26) e. g. *ταοτα*, *ἐόνοιαν*, and this way of writing the sounds was very common in other Ionian towns as well in the third and fourth centuries B.C., as is pointed out by the same writer. Here too we must consider the writing of *εο* to be an attempt at representing to some extent the old *u* sound, in a case in which *ου* could not possibly be used. Since then, as we saw at p. 562, *F* had a sound apparently almost the same as an irrational *u*, why should we be surprised if, in a period in which the character *F* fell into disuse, 572
we occasionally find its place taken by *o*? — In *ὀγδοοὺ* when used as a disyllable in Homer (see p. 536), *o* is phonetically half vowel, half consonant, like the *υ* in *δακρύοισι* (*σ* 173). The sound of the *o* came almost as near to that of the semivowel *υ* as that of the *υ* did. This is also proved by the tolerably frequent transliteration (mentioned at p. 563) of the Lat. *v* by *o* in Latin words; e. g. the constantly occurring *Κόϊντος* (also *Κύντος*, Lobeck 'El.' ii. 24, and *Κίντος*),

Ὀαλέριος ('Inscriptions recueillies à Delphes' No. 17, l. 87). It took a considerable time for the cumbrous *ου* to establish itself in its place. This is enough to show, I think, that our hypothesis has a definite foundation after all. There is a difference between sounds which, like the *ϝ*, began to disappear early, leaving however some traces behind, and those which remained in existence always. The former assume all sorts of different shapes. We must not cut everything after the same pattern, nor imagine that we can exhaust the changes of sounds in a few rigid formularies. The change of *ϝ* to *o* has the clearest parallel in Old High German, e. g. *snêo* = Goth. *snaiv-s*, *falo* gen. *falwes*, where the oldest records have the *u* still. Here no doubt *o* arose immediately from *u*, but this applies to Greek as well, the only difference being that, as Greek had no simple character for *u* the intermediate step was never written.

After having thus examined generally the probability of this change of sound, which we assert, we must now apply the test to particular instances. We shall begin with a word of which hitherto no other tolerably credible explanation has been proposed: *δοάν* in Alcman (Bekk. 'Anecd.' 949, 20). This word has already been considered by Buttmann 'A. Gr.' i. 44 in its connexion with the lengthening of the vowel before *δήν* and *δη-ρό-ν* usual in Homer [1] (*οὐδ' ἄρ ἔτι δήν*, etc.), and referred to *δϝαν*, *δϝην*. With Benfey (ii. 209) and Leo Meyer ('Ztschr.' vii. 216) we consider this *δϝαν* as a shortened form of *διϝᾱν* the accusative from the stem *διϝα* 'day' = Lat. *die* for *dive* (No. 269). This stem can therefore be regarded as Graeco-Italic in the form *divā*. Sanskrit knows only *diva-m* (neut.) in the sense of 'sky,' 'day,' and *div*, *dju* (regularly masc. in the Vedas) with the dat. *div-ḗ*, the instrumental *div-ā́* 'by day.' That the notion 'a long time' can grow out of this stem is shown by the Lat. *diū* (cp. *inter-diu*) and the Skt. in-
573 strumental plur. *dju-bhís* = *diu*. While Latin keeps both sounds only in *diū*, and elsewhere now the *i*, now the *v* (*u*) of this stem: *die-s*, *tri-du-u-m*, *dū-dum*, the *ι* has disappeared in Greek without a trace, and the acc. *δϝᾱν*, *δοάν*, *δήν*—properly 'a day long'—come into use as an adv., with which again *δηρόν*, *δηθά*, *δηναιός* are connected.

[1] Cp. now Hartel 'Homerische Studien' i². p. 13.

The relation which *δοάν* bears to the Lat. *diem* seemed to be the same as that of the Homeric *δοάσσατο* 'seemed' to the imperf. *δέατο* (cp. No. 269). Hesychius's *δεάμην· ἐδοκίμαζον, ἐδόξαζον, δέαται δοκεῖ* have received a remarkable confirmation from an inscription. The inscription of Tegea, edited by Michaelis (Fleckeisen's 'Jahrb.' 1861 p. 585), gives us the conjunctive to it *δέᾱτοι*, the first time after *εἴ καν*, the second time after *ὅσᾳ ἄν*. We can accordingly assume with certainty a middle verb *δέ-α-μαι* 'I seem,' the *α* of which, like that of *ἔρα-μαι*, is lengthened in the conjunctive (cp. *ἔρᾱται* Pind. 'Pyth.' iv. 92, 'Gk. Verb' p. 318). The question arises how are we to connect these two synonymous verbal forms. My former view was that from *διϝα* arose on the one hand by syncope of the *ι δϝα* and subsequently *δοα*, which had a form *δοάσσατο* as *ἀγα* had *ἀγάσσατο*, on the other hand by expulsion of *ϝ δια* and, on the analogy of forms to be discussed later, *δεα*, whence *δέατο*. It is clearly against this hypothesis that it supposes the same set of sounds to have been treated in two different ways. On the other hand Fick's interpretation (i³. 620) is recommended by its simplicity. He derives *δέα-ται* from the shorter rt. *di* 'seem,' making it stand for **δι-α-ται*. It is true he says nothing about *δοάσσατο*. It is possible that this aorist form may have belonged to a present **δοάζω* formed from a nominal stem **δοα* for **δοια*, which last could have come from a rt. *δι* by addition of sound, just as the **σκοια* we arrived at at No. 112 as an expansion of the rt. *σκι*. I therefore no longer regard this aorist as a certain instance of *ο*=*ϝ*. — On *δοιοί* see p. 239.

Of *ζόασον· σβέσον* (Hesych.) M. Schmidt's explanation is that *ζ* here represents the soft sibilant, which was usually denoted by the less appropriate character *σ*, while the *ο* like the *β* had its origin in the *ϝ*. (Compare at the same time the form *ζείνυμεν· σβέννυμεν* (Hesych.), which has lost the *υ* sound altogether.) But while many conjectures have been made of very different kinds about this root (particularly by Joh. Schmidt 'Ztschr.' xxiii. 300, Fick i³. 603 and now by Brugman 'Forsch.' i. 19) no relationship can be said to have been definitely established for it, and consequently the explanation that the *ο* has come from *υ* has only a certain

amount of probability in so far as both *ο* and *β* may have come from *υ*.

The frog's croak *κοάξ* corresponds to Eng. '*quack*' and
574 Ovid's 'sub aqua, sub aqua maledicere tentant' ('Metam.' vi. 376). The Latin *coaxare* is perhaps only an imitation of *κοάξ*. Just so the sucking pig's *κοΐζειν* corresponds to Eng. *squeak* (Bohem. *kvič-e-ti* 'grunnire'). Windisch points out to me that by the Indians the frog's note is rendered by *akhkhala* ('Rig-veda' vii. 103, 3). — Cp. Etrusc. *Vilatas*='Οἰλιάδης, Jordan 'Krit. Beitr. Z. Lat. Sprache' p. 52.

Another case in point is the Cretan town *Ὄαξος* (Ahr. 43, Boeckh 'C. I.' ii. p. 401), as Steph. Byz. calls it, whose inhabitants are called *Ϝάξιοι* on coins, while elsewhere the common form of the name is *Ἄξος*. Apollon. Rhod. i. 1131 calls the country *Οἰαξίς*, using, that is, *οι* to represent the *Ϝ* where he wants a long syllable, a diphthong which in his time differed but little from *υ* in sound. Steph. Byz. gives *ἀγῆναι* (No. 654 b) as the etymon, and tells us that *ἀξός* is the dialectic equivalent for *ἀγμός* 'precipice,' 'breach.' In these words as in *Κόϊντος* the accent should be noticed, as it has found its way to the new syllable. To this view Hugo Weber and Voretzsch p. 7 oppose another, built mainly on the extraordinary form ϹΑΥΞΙΩΝ 'C. I.' No. 3050. But this form actually occurs only in the subscription, while in the text, which is disfigured by extraordinary blunders, we find ϹΑΥΞΙΩΝ at several places. This *Ϝαῦξος*, we are to believe, arose from *Ϝά-Ϝαξος* as also *Ὄαξος*, *Ἄξος*. But in substantives, with the exception of onomatopoetic words, reduplication, and that too by means of the heaviest vowel *α*, is by no means of so frequent occurrence that we may venture to assume it offhand; and the only support of this assumption is, as we see, not exactly a strong one, inasmuch as the Cretan inscriptions from Teos have all come down to us in a very imperfect form, and hence should be used cautiously for etymological purposes (cp. Ahrens 16). The *αυ* in ϹΑΥΞΙΩΝ might be the representative of a duller *α* sound, as it must be taken to be in the Thessal. *δαύχνη* for *δάφνη* mentioned at p. 482.

The Locrian town *Οἰάνθη* or *Οἰάνθεια* is in Plutarch

also called '*Υάνθεια* (Ross 'Lokr. Inschrift von Chaleion u. Oiantheia' p. 14). — Unless we are to regard '*Υ* as a mere copyist's mistake, the easiest course is to explain the word to be *Fι-ανθη* 'violet-flower,' and hence the equivalent of the proper name '*Ἰάνθη* (No. 590), and even to derive *ὑάκ-ινθο-ς*, with a twofold diminutive ending, from the same stem *Fιο*.

In the place of the forms '*Οἰλεύς*, '*Οἰλιάδης* recommended by Aristarchus, Zenodotus (Düntzer 'De Zenod. stud.' 50) read '*Ἰλεύς*, '*Ἰλιάδης*, and this was the form used by many later writers, especially by Stesichorus. It is certain that here too the primary form was *Fῑλεύς*, which is easily explained by *Fῖλη* 'troop' (p. 564). The *ο* in this name, which is established for Homer by the metre, proves the antiquity 575
of the change of *F* to *ο*.

The relation of *οἰσ-ύ-α*, *οἶσο-ς* to *Fῑτέα*, *Fῖτυς* has been already discussed at No. 593. No one ever heard of *ῑ* changing to *οι*, hence *ο* must stand for *F*.

Perhaps the same stem may be traced in the name of the Lacedaemonian town *Οἴτυλος* variously written *Βείτυλος*, *Βείτουλος* (Ahrens 'Dor.' 46). It is clear at any rate that the *Ο* and the *Β* here arose from *F*.

The Thessalian '*Ολοοσσών*, later '*Ολοσσόνες* — cp. Lob. 'El.' i. 471 — probably owes its double *ο* to a *F*. Cp. No. 527.

The name of the Cretan town '*Ολισσήν* with the by-form *Βλισσήν* ('Ahr.' 50) seems to contain an initial *ο* of the same kind. Cp. note on No. 544.

On finding the same small Sicilian stream called now *Ἄνις* now *Ὤανις* we are inclined to believe here too in a form *Fᾱνις*. In Pindar 'Ol.' v. 26 there is certainly a hiatus before the *ω* too, and this seems to point to a consonantal initial. There is no objection in the lengthening of the vowel that has arisen from *F*, which we should have to suppose took place later.

We may finally mention *ὄρυζα* 'rice.' It is clearly a borrowed word, and, as is recognized by Pott ii[1]. 168, and Benfey i. 87 (cp. Hehn[3] 438), seems not so much directly to resemble the Skt. *vrīhí-s* (m.) in sound as to be an attempt at reproducing a related Persian form which has a sibilant instead of *h*. It is worth noticing all the same as a proof

that the Greeks tried to express a foreign *v* too by *o*. Pictet i. 273 gives the Afghan *urishi* which also has a vowel in the place of *v*. The Gk. by-form *ὄρινδα* comes nearer to the Armen. *brinz* and the Mod. Pers. *birinǵ*.

In a few remaining cases it is more difficult to decide whether *o* has come from the simple consonant *ϝ*, or from the syllable *oϝ*. *ἀλοάω* 'thresh' must be related to *ἄλευ-ρο-ν* (No. 527), which gives us the stem *ϝαλεϝ*. From this seems to have arisen *ϝαλοϝ-η*, then, with lengthening to compensate for the loss of the *ϝ*, *ϝαλω-ή* and *ϝάλω-ς* (cp. *πλώω* for *πλοϝ-ω*), and so too the noun-stem *ϝαλοϝ-ια*, whence *ἀλο-ιά-ω* (*l* 568 *ἀλοία*) and *ἀλο-ά-ω* are derivatives. — The case is the same with *γάλω-ς*, for which under No. 124 we gave *gal-vo-s* as the primary form. The *ω* seems to point here too to *oϝ*, whence too *γαλό-ως* for *γαλοϝ-ο-ς*, so that we here regard *o* as an auxiliary vowel introduced between λ and *ϝ*. — On the other hand there are no such indications in the triple stem *ὀλοο* in *ὀλοόφρων* (No. 555), where *ὀλοο-ς* corresponds
576 to the Lat. *salvu-s*, *ὀλοοί-τροχο-ς* (No. 527), where it corresponds to the Lat. *volv-ere*, and *ὀλοό-ς* 'destructive' from the still obscure rt. *ὀλ* (*ὄλλυμι*), lengthened *ὀλ-ε* (*ὄλε-θρο-ς*), hence possibly from **ὀλε-ϝο-ς*. The forms *σολϝ-ο*, *ϝολ-ϝο*, and *ὀλ-ϝο* are just as possible as *σολ-ο-ϝο*, *ϝολ-ο-ϝο*, and *ὀλ-ο-ϝο*.

3. *ι* as the representative of *ϝ*.

Christ p. 193 ff. assumes that *ϝ* is vocalized to *ι* to a large extent. Since *ι* is near akin to the *υ* which often represents *ϝ*, this change has at all events some credibility at first sight. But it disappears at once if we consider that *ϝ* did not pass immediately into *ü* but into *u*, and this would necessitate the assumption of a threefold change — to *u*, then to *ü*, then to *i* — if we were to go so far as to assume for *ϝ* the last metamorphosis. Moreover in most of the cases it is possible to find another explanation of the *i*.

In the first place, as far as the initial *ι* is concerned, we must at once separate from among the words adduced by Christ the proper names *Ἰάνειρα* and *Ἰάνασσα*, since both admit of explanations from other sources, and since the *ϝ*

of ἀνήρ (No. 422) has no authority; and again ἱέραξ, since βάρβαξ which he compares with it, appears in Hesych. not, as Christ says, as a Lacedaemonian, but as a Libyan word, and accordingly has no weight whatever in any question of Greek etymology. At the same place we read ἰαρεῖον· πρόβατον, βοῦς, Who can doubt (cp. Ahrens 'Dor.' 115) that ἰαρεῖον = ἱερεῖον in the sense of 'hostia' is the right reading? In the case of other words it remains doubtful whether the ἰ is not rather a reduplication (instead of Fι), e.g. in ἰ-ωγ-ή 'protection from the wind' (cp. ἐδ-ωδ-ή, ἰ-ω-ή), which at all events Lobeck is right (Prolegg. 307) in putting under the rt. Fαρ (p. 542). It will hardly be advanced against this that in the only passage in Homer in which the word occurs (ξ 533) there is no trace of an initial F. The same is the case with ἴ-ουλο-ς 'sheaf,' which Christ does not mention, by the side of οὖλος, whence Demeter got the names Ἰουλώ and Οὐλώ, clearly from the rt. Fελ (No. 527), and with ἴουλο-ς 'earth-worm,' a word of like origin, which belongs immediately to ὑάλη, εὐλή discussed on p. 564, again with ἰῶλκα, αὔλακα (with the by-forms ἅλοξ, ὦλξ, ὅλοξ No. 22), with ἰωρός in which the meaning φύλαξ οἴκου connects it at least probably with οὖρος (rt. Fορ No. 501). There remains then only Ἴακχος by the side of Βάκχος. But Bergk ('Griech. Literatur' in Ersch u. Gruber's 'Encyklopädie' 1, Section 81 p. 315) regards Ἴ-ακχος too as reduplicated, for Fι-Fακχο-ς, so too Savelsberg 'De dig.' 24, where attention is called to the Homeric ἀ-νίαχοι, ἄ-ηχος and other indications of a rt. Fαχ. Cp. βα-βάκ-τη-ς· κραύγασος, ὅθεν καὶ Βάκχος Hes.

In the middle of a word the case is different. The 577
language of Homer presents several instances in which ι stands in the place of a faded digamma. But here too the question must be asked in each case whether it is really a change of F to ι that has taken place. In the case of many of the words adduced by Christ the answer must be a decided negative. For instance, the ι in ἀ-δελφε-ιό-ς, where the stem δελφυ (p. 479) appears as δελφεF, belongs without a doubt to the derivative termination, and the same may be said of the ι in κα-ί-ω, κλα-ί-ω, δα-ί-ω ('burn'), since everything inclines us to regard the ι as a lengthening peculiar to

the stem of the present tense. This accounts for καύσω, etc. It is extremely probable that the same is the case with the Epic forms θείειν, πλείειν, πνείειν, of which at least the second finds an analogy in a kindred language: ChSl. *plov-ją*, Lith. *pláu-ju* (No. 369). — In other words too the ι is a part of the stem, e.g. in οἰ-ωνό-ς which we must explain not by ὀϝ-ωνό-ς but by ὀϝι-ωνό-ς (No. 596). — In the related ὤ-ϊ-ο-ν it is hard to say whether ο or ιο is the suffix, but the Argive form ὤβεον, i.e. ὠϝιο-ν (No. 597), proves that the ι was already in existence before the loss of the digamma. — Schleicher (Hildebrand's 'Jahrb.' i. 407) refers ζειά to the primary form *jav-ja*, so too Sonne 'Ztschr.' xiii. 430, who on account of the accent of the suffix -ιά rightly compares it to that of the collectives, e. g. ἀνθρακ-ιά (Van. 757). On the supposed forms εἶως, τεῖως it is enough to refer to No. 606. The trochaic ΗΕΟΣ, ΤΕΟΣ Bekker ('Hom. Blätter' i. 227) prefers to write εἷος, τεῖος because before ο and ω ει is the Homeric lengthening of ε. But ἧος, τῆος, with the long vowel that had existed from the beginning, find support in ἠώς. In the adverb as in the noun ἕως (No. 613) the short vowel is the later. — It is less often that the diphthong οι grows out of ο. The history of writing does not help us to explain this. But πνο-ιή by the side of πνοή might be explained by πνοϝ-ιη. More difficulty attends the unique form ἀγνοιῇσι (ω 218), where the ι seems to have no *raison d'être*. Perhaps it is the result of a mere poetic license after the pattern of εἰλατίνη for ἐλατίνη, εἵατο for ἕ-ατο. To the same class belongs especially οἰ-ετής for ὀ-ϝετής (No. 210) by the side of αὐετής. I do not think we are here dealing with actually living forms any more than in the case of Aristarchus's reading οἴιες by the side of ὄϊες (– ⏑ ⏑ ι 425), i. e. ὀϝι-ες, for I can see no warrant for assuming a form *οἰϝι-ς due to epenthesis. In this, as in other questions, there is no chance of arriving at clear views without taking into consideration the conventional character of the Homeric language, which, after a long life of oral tradition in the schools of the bards, was fixed in a written form by scribes who were perfectly conscious of
578 their task, and not subjected to any scientific criticism till the time of the Alexandrian grammarians. Here if any-

where the need appears of pursuing linguistic and literary studies hand in hand.

Strictly speaking then there is — as Ebel too decides (Fleckeisen's 'Jahrb.' 83 p. 84) — *no* proof of a phonetic change of *F* to *ι*. When occurring in the middle of the words adduced — and their number might easily be increased (e. g. by λείουσιν No. 543) — the *F* can claim no other effect than that of having caused a lengthening of the preceding vowel, after it had fallen out itself. Such words belong accordingly to the same class as ἠείδη for ἐ-Fείδη, βασιλῆ-ος for βασιλέF-ος, treated of by Ebel 'Ztschr.' iv. 171 and Brugman 'Stud.' iv. 130 ff. It is there clearly shown that the length in such cases is variable, the loss of the semi-vowel being compensated by the length now of the preceding, now of the following vowel (βασιλέως, ἑάλων). Cp. Rumpf in Fleckeisen's 'Jahrb.' 1860 p. 682. Also πλώ-ω, χωό-μενος, χώ-νυν-μι (No. 203), ῥώ-ω and the like, by-forms to the rts. πλυ, χυ, ῥυ, owe their existence to a similar lengthening, which however is here accompanied by a dulling of the vowel. Perhaps we must assume old forms πλου-ω, χου-ω, ῥου-ω in which ου acted as an augmented υ instead of the usual ευ. ω bears the same relation to an ου of this kind that the traditional Doric, and, in the sense of shield, Homeric βῶ-ς bears to βοῦ-ς (Ahrens 'Dor.' 166). We have already (p. 575) assumed the same to be the case with ἅλω-ς, ἀλω-ή and γάλως.

b. PREFIXED VOWELS AS WITNESSES TO A DIGAMMA.

In the place of the old labial spirant we often find an ε, more seldom an α, now and then the two side by side in the same word in different dialects, e. g. Cretan ἄερσα, Homeric ἐέρση (No. 497), Skt. *varshá-s*. In order to decide the question, whether such a vowel arises, as was formerly assumed, *out of F* in the same way as the *u* and *o* we have just discussed, or as is now generally recognized to have been the case, was originally prefixed to the *F* and then kept its place after the *F* disappeared, in other words, whether the order of the forms was Fερσα ἄερσα (ἐέρση) or Fερσα ἀFερσα (ἐFερση) ἄερσα (ἐέρση) it will be necessary first of all to make a survey of all existing forms of the kind.

The following are probably the only examples of *α* as the initial letter of digammatized words:

ἄεθλο-ν (No. 301), as is there shown, from a rt. *ϝεθ*.

579 *ἀείρω*, which, as we showed at No. 504, comes from a rt. *ϝερ*.

ἀέξω by the side of the Skt. *vaksh* No. 583.

ἄερσα No. 497.

ἀΐτυρο-ν· ὕαλος (Hesych.) I connected in the 'Quaestiones etymologicae' p. iv. with the Lat. *vitru-m* (No. 282), holding it to be the vulgar Graecized form of the Latin word. M. Schmidt 'Ztschr.' ix. 400 calls this comparison in question, explaining the gloss in Hesychius to be a mistake for *λίγυρον*, a rare by-form of *λυγγούριον*, *λιγγούριον* 'amber.' But what is there to show that, by the side of the names for a shining mineral body beginning with λ, given by Schmidt, this transformed foreign word might not occur in some dialect or other as a name for glass? Latin words are of common occurrence in Hesychius.

ἅλοξ (No. 22), the Attic form of the Homeric *αὖλαξ*, *ὦλξ*, Dor. *ὧλαξ*, in Hesych. *ὅλοξ*, without doubt from the rt. *ϝελκ* 'draw,' and hence probably for *ἀ-ϝλοξ*.

ἀν-άεδνο-ς (*I* 146, 288, *N* 366), where Bekker now agrees with Benfey in reading *ἀν-έϝεδ-νο-ς*, and *ἀν-άελπτο-ς* (Hesiod 'Theog.' 660) we may, with Christ 213, place here, though the *α* as a representative of the *ε*, which is elsewhere usual in the case of these stems, looks suspicious; moreover we find *ἀνα-* in forms which do not admit of this explanation, e. g. *ἀνάπνευστος* (Hes. 'Theog.' 797). Cp. No. 420 and Gust. Meyer 'Zur Geschichte d. indogerm. Stammbildung' (Leipz. 1875) p. 11.

The far more frequent *ε* is discussed by Lobeck 'El.' i. 55 ff. The words and forms belonging here are the following:

ἔαγμα, interpreted by Zonaras by *σύντριμμα*, i. e. 'fracture,' 'bruise,' and preserved by Suidas in the form *αἴαγμα*, along with *εὐκατέακτος* (Lob. 'El.' i. 59) from the rt. *ϝαϝ* 'break' (p. 542).

ἔεδνα or *ἔεδνα* constantly in Homer, cp. No. 252, by the side of the less frequent *ἕδνα*.

ἐειδόμενος Pind. 'Nem.' x. 15 and the aor. *ἐεισάμενος*, *ἐεισα-*

μένη in Homer from the rt. *Fιδ* (No. 282). Cp. Bekker 'Hom. Bl.' i. 156.

ἐείκοσι No. 16.

ἐειρόμενος only in the 'Certamen Hom. et Hesiod.' p. 319, 9 (Goettling) in the sense of 'asking.' At No. 493 we saw that *ἐρέσθαι* 'ask' had no *F*. Here then the *ε* must be the result of a mere imitation of older forms that were not understood. Cp. the following page.

ἐέλδομαι (*Ξ* 276), *ἐέλδεαι* (*ε* 210), *ἐέλδεται* (*N* 638), *ἐελδόμενος* (*α* 409), *ἐελδομένῳ* (*μ* 438), *ἐελδομένοισιν* (*H* 4), *ἐέλδωρ* (*A* 41 etc.). The rt. *Fελ-δ* is to be regarded as an expansion of *Fελ* = *βολ* (No. 659). 580

ἐέλσαι (*Φ* 295), inf. aor. to rt. *Fελ* (No. 660).

ἐέργει (*B* 617, *I* 404 etc.), *ἐέργουσιν* (*λ* 503), *ἐεργόμενοι* (*N* 525) rt. *Fερ*ϝ (No. 142).

ἐέρση by the side of *ἄερσα* just mentioned (No. 497).

ἐεῖση (No. 569).

ἐόργη with the by-form *εὐέργη*, given by Pollux vi. 88 among culinary utensils, and interpreted by *τορύνη*, i. e. 'ladle, 'stirrer' (*tudicula*), together with its derivative *ἐοργῆσαι· τορυνῆσαι* (ib.) and *ὀργάζειν* 'knead,' are placed correctly by Lobeck 'El.' i. 63 with *ἐργάζεσθαι*, and hence under our rt. *Fερ*ϝ (No. 141). The by-form *εὐέργη* belongs to the examples of *F* vocalized to *υ* discussed above (p. 566 f.). The same root appears in connexion with quite another meaning in *παν-οῦργο-ς*, where the *ου* may be explained from *παν-εοργο-ς*, and hence likewise from a form with a prothetic *ε*, though possibly from *παν-οοργο-ς* for *παν-Forγο-ς*.

ἑορτή (Herod. *ὀρτή*) is shown by the irregular augment of its derivative *ἑορτάζω* (*ἑώρταζον*) to belong here. The connexion with *ἔρδω* however, conjectured by Lobeck 'El.' i. 63, is quite inadmissible, because the *δ* of *ἔρδω* arose out of *γ* (No. 141). If it could only be proved that, as Sonne 'Ztschr.' xiii. 442 conjectures, *ἑ-ορτή* stood for *FεFορτη*, we should have to take another view of the *ε*. Cp. below p. 587, where, with Fick i³. 771, we shall try to establish for it the rt. *var* occurring in the Skt. *vra-tá-m* 'holy work.'

The forms *συν-ε-οχμό-ς* 'joint' and *ἐ-εχ-μένη· συνεχομένη*

(Hesych.) have been already mentioned under the rt. ϝεχ (No. 169).

ἀπ-εωστό-ν· ἀπωθητόν, as we ought probably to read the interpretation in Hesych. instead of ἀπόθητον, is a fresh trace of the ϝ in the rt. ὀθ besides those given at No. 324.

At p. 36 we expressed the belief that Roth was right in regarding the η in ἠ-ίθ-εο-ς (rt. *vidh*) as lengthened from a prothetic ε.

Since in post-Homeric times the ε of these words was regarded as a mere pleonasm, it is not surprising that this sound should have been introduced by mistaken imitators of an apparent license, in stems which show not a trace of a ϝ, as especially in ἐέδμεναι (Empedocl.) rt. ἐδ (No. 279), ἐέσχατος explained by Suidas as ὁ ἔσχατος, belonging to ἐξ (No. 583 b), ἐνέεικαν· ἤνεγκον, ἐνεείκω· ἐνέγκω (Hesych.),
581 mentioned at No. 424. Formations of this kind must be regarded as mistakes of the poets; they were certainly never incorporated into the living language. We expressed a doubt at No. 599 whether the same was the case with ἕεις (Hesiod 'Theog.' 145). The form occurs again in the Anthology, and Herodian περὶ μονήρους λέξεως p. 18 mentions it.

It almost looks as if aberrations of this kind cannot be excluded even from the Homeric poems. The more carefully they are examined in reference to their dialectic peculiarities, the more do they assume an appearance of a vast patchwork — some of the stuff very old, some new[1]. I. Bekker says in the 'Hom. Blätter' i. p. 156 note 'although εἵσατο and ἐείσατο "went" seem also to have the digamma.' The facts are as follows. In εἶμι, ἰών, ἔπεισι, etc. there is never any but a vowel initial. On the other hand out of the 16 verses in which the middle forms εἴσομαι, εἵσατο occur, 7, either by a hiatus (ἐπιείσομαι Λ 367, Υ 454, ἐπιεισαμένη Φ 424, καταείσατο Λ 358), or by a prefixed ε (ἀντ' Αἴαντος ἐείσατο Ο 415, τὼ μὲν ἐεισάσθην Ο 544, cp. χ 89) seem to point to a consonantal initial; and to these cases 4 may be added in which the hiatus might after all find an excuse in the bucolic caesura (διαπρὸ δὲ εἵσατο χαλκός Ε 538, Ρ 518, ω 524, cp. Δ 138). Two passages are neutral, because the verse begins with

[1] Cp. A. Leskien 'Studien' ii. 68.

εἴσομαι, εἴσατο, and only 3 are against the digamma (*πάλιν εἴσομαι Ω* 462, *δεῦρ' εἴσεται ο* 213, *μετεισάμενος N* 90). We may add Apollon. Rhod. ii. 372 the perfect form *δια-ειμένος* (? cp. Buttmann 'Ausf. Gr.' i². 541). Now are we on this account to separate these forms from the others of precisely the same meaning belonging to the rt. *i*, and connect them, say, with the Skt. rt. *vī* 'go,' 'drive,' a course which is easy to advise, but hard to defend? Or ought we not rather to assume that the bards themselves, having no fixed rule for the use of the *F*, which was for them already half obsolete, were misled by the false analogy of *ἐείσατο* ('seemed'), and put in the *ε* before *εἴσατο* ('went') as well, where it suited the verse, and allowed the hiatus from the same reason? The latter seems the more probable to me.

We now come to the main question, — how are the vowels *α* and *ε* in the forms above collected to be regarded? The best explanation the older school of grammarians had to give was that of *πλεονασμός* or *πρόσθεσις* (Lob. 'El.' i. 56). In later times Hoffmann has maintained decidedly ('Quaest. Hom.' ii. p. 10) that *F* was changed into the vowel *ε*. This is much the same as Bopp's view ('Vgl. Gr.' ii². 105): at all events he talks of a melting into *ε* in the middle of the word *τεοῖο*. But the majority of modern grammarians are 582
of the opposite opinion, that *α* and *ε* are prefixed vowels after which the spirant did not fall out till later, a view held especially by Buttmann 'Lexilogus' i. 145 f., Giese 285, Ahrens 'Dor.' 257, I. Bekker 'Homer. Blätter' i. 133, where comparison is made with 'the *e* prefixed in Romance languages for the sake of ease of pronunciation (*escalier*, *espada*),' Savelsberg 11, Pohl 21, Rumpf in his elaborate review of Bekker's Homer in Fleckeisen's 'Jahrb.' 81, p. 680 ff., Schlei her 'Compend.²' 219. Christ adopts a middle course (196), and regards the *ε* as a prefix when it is at the beginning of a word, and as a transformed *F* when it is in the middle. There would be no great wonder in the change of *F* into *ε* — through the medium of the vowel *u* perhaps — especially if we imagine the *e* to be half mute, like that which has arisen in innumerable cases from an old *u* in OHG. and NHG. But the *α* could hardly be explained as a metamorphosis of the

υ, since it is without doubt farthest removed of all vowels from the region of the lips. Therefore after mature consideration of the question I am now decidedly in favour of the second of the above solutions. The following are the main grounds for my decision. In certain cases we can be quite sure that an *α* or *ε* was prefixed to the *ϝ*, because the old digamma still exists after these vowels in the form of *υ*, e. g. in *αὔληρον* and *εὔληρα* (p. 568), in *εὐιάδες ἄμπελοι* from the rt. *ϝι* (cp. p. 564), in *αὖλαξ*, i. e. *ἀ-ϝλακ-ς* (p. 579). It is accordingly clearly proved that a prothetic *α* and *ε* were prefixed to a *ϝ* as well as to liquids and nasals, as in *ἀλείφω* No. 340), *ἐρυθρός* (No. 306), *ἐλαχύ-ς* (No. 168), *ἀμεύω* (No. 450). It is probable too that some forms, in which at first sight *ϝ* seems to have been transposed from the beginning to the middle of the word, are to be explained in the same way. Even Buttmann whose sound keen judgment seldom forsook him in these questions, connects ('Lexil.' i. 146) the Homeric *εὔκηλο-ς* (No. 19) with the likewise Homeric form *ἕκηλο-ς*, assuming an intermediate form *ἑ-ϝεκ-ηλο-ς*, whence by syncope *ἐϝκηλο-ς*, and, by vocalization of the *ϝ*, *εὔκηλος*. Hugo Weber's objections to this view (Fleckeisen's 'Jahrb.' 1863 p. 608) fail to convince me that it is mistaken. If, as we see, the acute accent fell in *ἕ-εδνα*, *ἕερσα*, *ἕαγμα* on a syllable which arose at a later time under the influence of phonetic tendencies, why could not this happen in the case of *ἐ-ϝκηλο-ς*? and if an accented vowel can disappear from the end of *παρά*, *κατά*, *ἀνά*, why not from the middle of a word as well? (Cp. 'Stud.' iv. 223 ff.) *εὔκηλος* has moreover been influenced probably by the analogy of *εὖ* (cp. *εὔαδεν*). — On the other hand, in the case of the forms *ϝα* and *ἀϝ* (No. 587) there is much to show that both forms existed from a very early period side by side. — On *αὐξ* we may refer to Nos. 159, 583,
583 on *αὐδ* by the side of *ἀϝεδ* and *vad* to No. 298. — In *οὐρανός*, which at No. 509 we identified with the Skt. *Váruṇa-s*, I cannot regard it as proved that we have a transposition of *ϝορ-ανο-ς*. Windisch regards **var-vanas* as the primary form; in that case *οὐρ-ανό-ς* and the Dor. *ὠρανό-ς* would have arisen from *ὀρ-ϝανο-ς* (cp. *κούρη*, *κώρα* from *κόρϝα*).

If then it is an established fact in the first place, that for

certain forms the assumption of a prefixed vowel is a necessity; if, in the second, a vowel of the same character creeps in before other consonants as well, at the beginning of words, under precisely similar conditions; if, thirdly, forms arrived at on the analogy of these furnish us with a simple explanation of the forms which actually occur, we may venture, I think, to regard this explanation as established, and consequently to deny that *F* was ever actually changed into *α* or *ε*.

c. *F* Transformed to other consonants.

1. *β*.

There can be no doubt that of all the usual marks left in Greek by a vanished *F* none denoted a sound more nearly approaching to the sound *w* in English than *β*. It is true that, when the Greeks began to write in their own character Roman names and words, *β* was as yet by no means the universal and complete representative of the sound given to it by the modern Greeks, as may be seen from the fact that *β* always stood for the Latin *b*, and conversely *b* for *β*, while on the other hand *β* was only partially used — i. e. alternately with *ου* and *ο* — to denote the Latin *v*. But *β* must always have had a sound that was near to the interlabial spirant, and in the course of time became identical with it. Since our grammarians and lexicographers all belong to a time in which the softening had become pretty general, it is often quite impossible to decide whether a *β*, which they have handed down to us, is merely the written representative of the labial spirant, or whether the actual sound of the spirant has been hardened to that of the kindred explosive. In order to be sure of our footing, we shall always apply ourselves first to such words and forms as we know to have been actually used in old times, and then proceed to those which, given possibly by lexicographers according to their pronunciation, perhaps are witnesses rather to the preservation than the change of the spirant. Words which are decidedly given as Doric or Aeolic we shall omit altogether, since we have nothing essential to add to 584
Ahrens's exhaustive treatment of the subject ('Aeol.' 33 ff.,

'Dor.' 44 ff.: cf. Voretzsch 'De inscr. Cret.' p. 5). It is beyond question that in early Greek β had not the same sound as ϝ, for we are expressly told of a change of ϝ to β before ρ even in Alcaeus and Sappho, in whose texts ϝ was written before vowels. Nor have we any reason to assume that, when the Attic dialect was at its best, the sound of the old ϝ was actually retained intact in that part of Greece, in the form β. On the contrary there is no doubt that in such cases we have to do with a hardening of the ϝ to the explosive, a process which finds countless analogies in the Teutonic languages. For instance in NHG. after *l* and *r* an old *w* becomes *b*: *Schwalbe*, *Farbe* = OHG. *swalawâ*, *farawa* (Grimm 'Gr.' i. 525). In Old Irish it is a question whether the *b*, e. g. in *tarb* 'taurus' (OGall. *tarvos*, OCymr. *taru* later *tarw*), *berbaim* 'I boil' (Lat. *ferveo*), *fedb* 'widow' (Lat. *vidua*, Cymr. *gweddw*), really stands for the medial and not the spirant *v* which has found unmistakeable expression in the modern forms *tarbh*, *bearbhaim*, *feadbh*. Stokes 'Beitr.' viii. 308 is decidedly of the latter opinion, cp. 'Gramm. Celt.[2]' p. 54 ('aut servavit aut resumpsit'). From the standpoint of Mod. Irish the spirant would also have to be assumed in the OIr. *bar n-* 'your' beside *far n-*, which belongs to the Goth. *iz-vara*. Only in individual words like the OIr. *bran* 'raven,' which bears so remarkable resemblance to the ChSl. *vranŭ*, where however Cymric also has a *b* (cp. *cic-bran* 'corvus carnis' Z². 888), the medial has not yet been called in question. As an instance from the Romance languages we may give the Veronese *dobia* (=*jovia*, Ital. *Giovedi* 'Thursday').

A minute investigation will show that there exist in Greek, at all events within a considerable range, distinct phonetic inducements to this change. It is no mere chance, I believe, that the ϝ has specially often undergone this transformation *before* or *after* *o* or *v*. *o* and *v* are the vowels most nearly related to the ϝ. Just as the Romans showed their dislike to the combinations *vu* and *uv* among other ways by changing the spirant into *b*, e. g. in *ferb-ui* from the stem *ferv* and in *bub-ile* for *bov-ile*, so the change of ϝολ (Lat. *vol-o*) to βολ βούλομαι (No. 659), with which change may be compared that of ϝολόεις (Ὀλοῦς) to βολόεις (βολοέντιοι)

on the Cretan inscription edited by Voretzsch, seems likewise to arise from dissimilation, whence we then at once get an explanation of the relation of βολ to ϝελδ, ἐϝελδ. — Of the same kind is *θόρυ-βο-ς* the connexion of which with *θρέομαι*, 585
θρόο-ς, *θρῦλο-ς* is brought out at No. 317. The *ο* originates in the *ἀνάπτυξις* often before mentioned; the suffix we may conjecture to be *-ϝο* = Lat. *vo* (*clī-vu-s*, *sal-vu-s*), which here became *-βο*. — Lobeck 'El.' i. 72 conjectured that *ἴβυξ*, the name of an *ὄρνειον κρακτικόν*, together with the proper name *Ἴβυκος* were connected with *ἰύζειν* 'scream' (*ἰυγή*, *ἰυγμός*). The intermediate step would be the stem-form *ἰϝυγ* (otherwise Fick ii³. 204). — *κλωβό-ς* 'cage,' dim. *κλωβίον*, is no doubt connected with the st. *κλᾱϝ*, i. e. with *κλη-ί-ς* = *clāvi-s* (No. 59). — *κολοβό-ς* 'mutilated[1]' (in use from Xenophon onward) which has also the same meaning as the Homeric *κόλο-ς* and is evidently connected with the Homeric *κολού-ω* 'mutilate' (No. 114), is without a doubt formed like *ὀλοό-ς* (No. 555) = *sal-vu-s*. In the verb the digamma has become a vowel, in the adjective it has changed to *β* under the influence of the following *ο*. From the rt. σκολ deduced at No. 114 is formed first *κόλο-ς*, then **κολοϝο-ς*, and later *κολοβό-ς*, which bears to the shorter form the same relation as the Lat. *amb-ig-uu-s* does to *prod-ig-u-s*, and then finally the verb *κολού-ω* (perhaps for *κολοϝjω*, Schleicher 'Comp.²' 779), which is related to the stem of the adjective as *βασιλεύ-ω* is to *βασιλευ*, *μεθύ-ω* to *μεθυ*. — The forms *μόλυ-βο-ς*, *μόλι-βο-ς* have been discussed at No. 552, where the words of the same meaning from the related languages with a *w* are given. To these I add *μολβί-ς* = *μολυβδί-ς* from Hesych. On an inscription from Kamiros in Rhodes published by Newton in the 'Transactions of the R. Society

[1] Fick i³. 812 connects *κολοβό-ς* with the Skt. *kharbá-s* 'mutilated,' 'damaged,' 'crippled' with the by-form *kharvá-s*, which the 'Pet. Dict.' puts first. It is quite plain that the root of these two words is the same, i. e. that *khar* corresponds to the assumed σκολ. But I cannot believe that the vacillation between *b* and *v*, so common in Skt. has any historical connexion with the Greek change between *ϝ* and *β*, and still less that in Gk. *ϝ* is to be regarded as a weakening of *β*. Rather we ought to assume the suffix to have been *-va*.

of Literature,' vol. xi. (New Series, June 1878) we read at l. 10 *περιβολιβῶσαι*, i. e. 'make fast with lead.' The *β* points to a form **βλιβ* or **βλυβ* (cp. *plumb-u-m*) with an inserted vowel. — *ὄλ-βο-ς* was set down at No. 555 as the abstract substantive to *ὀλοό-ς* = *salvu-s*, in the sense of *salū-s*. This is supported by the accent, for *ὄλβο-ς* : *ὀλοό-ς* = *θέρμη* : *θερμή*. This etymology, which agrees with the remarks of Lobeck 'Rhem.' 111, seems to deserve precedence over the earlier ones both in respect of sound and meaning. — *ὄροβο-ς* was recognized at No. 494 to be identical with the Lat. *ervu-m*. The change to the medial has here the analogy of the MHG. *erbiz*, NHG. *Erbse*, OHG. *araweiz*. The deriva-
586 tive *ἐρέβ-ινθο-ς* probably owes its *β* to the primitive form of the word. — The change of *ϝ* to *β* is to be seen particularly plainly in the Corcyraean form *ὄρβος* ('C. I.' No. 1909) by the side of *ὄρϝο-ς* (ΟΡΕΟΣΙΑΡΟΣ) on another inscription from the same island discussed by Wachsmuth in the 'Rhein. Museum' xviii. 575 and Bergmann 'Hermes' ii. 139 (Kirchhoff 'Zur Geschichte des Alphabets[3]' 93). The Ionic *οὖρος* to which we may now add the Theraic *οὖρορ* ('Mittheil. des archaeolog. Inst. in Athens' ii. 77), is related to *ὄρϝος* as *νεῦρο-ν* (above p. 568) is to *nervu-s*. — We may also, with Hugo Weber (Fleckeisen's 'Jahrb.' 1863 p. 608), put with these the not very numerous nouns in *-αβο-ς* (fem. *-αβη*). *κάρα-βο-ς* 'beetle,' *κάννα-βο-ς* 'mould' (from *κάνναι* 'reed' according to Lobeck 'Proleg.' p. 268), *Ἑκά-βη* (I. Bekker 'Hom. Bl.' i. 292) very likely were originally of the same formation as *ἀγα-νό-ς*, *κερα-ό-ς* (*cervu-s*), *κρανα-ό-ς*, *ταλα-ό-ς*[1].

The Lacedaemonian *ὠβά*, the name of a division of the country, also belongs here. That the *β* in this word represents an older *ϝ* is proved by the by-forms *ὠγή· κώμη* (with *γ* to represent the *ϝ*), *ὥας· τὰς κώμας* (cod. *κόμας*), *οὐαί· φυλαί*, *Ὄα*, *Ὄη*, *Οἴη* an Attic deme, *οἴη* = *κώμη* in Apoll. Rhod. ii. 139 (M. Schmidt 'Ztschr.' ix. 366), *οἰητή-ς· κωμήτης* Soph. 'Fr.'

[1] For many of these formations Conr. Zacher 'De nominibus Graecis in *-αιος*,' assumes loss of an *ι* (p. 13 sqq.). We cannot always arrive at a definite criterion. The suffiix *-va*, however, both for primary and for secondary adjectives is as clearly established in Skt. as the *-uo* and *-vo* in Latin.

130 N. The Homeric *ὑπερ-ώϊο-ν* may also be naturally connected with these words. Since there is not a trace here of an initial digamma — for the Cretan *ὑπερβώϊα* given by Pott is the name of a festival (Franz 'Elem. Epigr.' 210), which does not belong here at all — or of a *σ* in the middle of the word, and since it is uncertain how we ought to regard the *β* of the Laconian word, the connexion with the Skt. *vas* mentioned at No. 206 is doubtful. Among the dialectic forms collected by Ahrens we may add to our present list *ἀκροβᾶσθαι*, *ὀρούβω*, *ὤβεα* = *ᾠά*, *ἐξωβάδια* = *ἐνώτια*. In *ὀρούβω* the spirant, which we should have expected in the place of *β*, whether as a matter of mere writing or of pronunciation as well, has developed just as in *βούβ-αλο-ς* (p. 478) and in the forms given on p. 570. To these we may add the proper name *Εὔβανδρος* from the inscriptions published by Karapanos ('Dodone et ses ruines:' sixième catégorie No. 3). *β* is here as in the Cypr. *Εὐϝαγόρας*, only a sign for the *w*-sound naturally developed out of *υ* before a vowel.

In Lesbian Aeolic *ϝ* before *ρ* regularly became *β* (Ahrens 34): *βρόδο-ν*, *βρίζα*. The same change occurs at least in 587
some words in ordinary Greek. *βρέχω* was referred at No. 166 b to a rt. *vragh*. — *βρά-σσω*, *βρά-ζ-ω* 'boil,' 'ferment' with the substantives *βράσ-μα*, *βρασμό-ς*, used also for the sea-surf and especially in *βραστή-ς* of earthquakes, forcibly reminds us of the Slavo-Lettic verbs of cooking and boiling: ChSl. *vr-ě-ti* 'fervere,' *vrěnije βράσμα*, *iz-vir-a-ti βράζειν*, *varŭ καῦμα*, *var-i-ti πέττειν*, Lith. *vìr-ti* 'cook,' 'boil,' *vìr-ti-s* 'whirlpool,' 'eddy' (Lex.). From a rt. *ϝαρ* might come by metathesis βρα, and by expansion by *τ βρατ-jω βράσσω*, like *ἐρέσσω* from *ἐρ ἐρετ* (No. 492). Cp. Corssen 'Nachtr.' 222. So that probably *Βρασίδα-ς* meant 'Hot-head.' The name of the Cretan hero *Βρασίλα-ς* would be better explained by the rt. βρατ, corresponding to the Lat. *vert* 'turn,' and occurring perhaps in *βρατ-άνη* by the side of *ῥατ-άνη* 'ladle.' In that case the word would mean 'Turner of the people,' *Τρόπαιος*. With this rt. *var* 'boil' the OHG. *wal-m* 'fervor,' *wal-î* 'tepor' is connected. I do not see how to establish phonetic connexion with *βρύ-ειν* 'boil' or 'bubble up,' though in meaning it comes as near to our present root as the Carlsbad '*Sprudel*'

('bubbling spring') does to *Vary* the oldest name for Carlsbad. — We may, with some approximation to certainty, place βρέτας here, as I have already done in the note to Overbeck's essay in the 'Transactions of the k. s. Ges. d. Wissensch.' 1864 p. 248. If we take -τας to be the suffix, which bears the same relation to the -τος of κύ-τος, κῆ-τος that ας (τέρ-ας, γέρ-ας) does to ος (γέν-ος, τέλ-ος), we are left with βρε as the root, and it is extremely probable that this is identical with the same *var* 'guard,' 'watch,' from which at No. 501 we derived on the one side ὁρᾶν, οὖρος, and on the other *vereri*, *revereri*. We have a decided proof of the early application of the rt. *var* to the worship of the gods in the Skt. *vra-tá-m* 'sacred act,' 'vow,' Zd. *varena* (m.) 'faith,' with which Pictet ii. 692 connects the Slavonic word for 'faith' ChSl. *věra* πίστις, *věriti* πιστεύειν. Accordingly βρέ-τας might mean 'something worshipped,' a very apt name for this the oldest name for the image of a god. We are tempted to place here also the word ἑορτή (for ἐ-ϝορ-τή) noticed on p. 580. Its proper meaning would then be 'worship.' The by-form ἔροτι-ς (prob. for ἐ-ϝρο-τι-ς) discussed by Ahrens 'Aeol.' 158 is not against this[1]. —
588 νεβρό-ς 'fawn' (Pott ii[1]. 235, Benfey ii. 51), ought no more to be separated from νεαρό-ς, i. e. νεϝ-αρό-ς 'young' than the Lat. *pullu-s* from *puer*, or *juven-ca* from *juven-i-s*.

The influence of the λ is unmistakeable in the stem βλαστ (p. 549), the relation of which to the Skt. *vardh* has been clearly explained.

The influence of the preceding σ is perhaps the explanation of the β, not only in σβέ-νυυ-μι which was above (p. 573)

[1] As far as the meaning goes there is much to recommend Bugge's comparison of βρόχ-ο-ς 'noose,' 'cord' with the Lith. *vèrž-ti* 'to tie,' *viržys* 'cord,' OHG. *wurgian* (Germ. *würgen*) 'strangle,' ON. *urga* (f.) 'cord' ('Ztschr.' xx. 25). Cp. Fick i[3]. 774. But in that case we should be obliged, as Bugge himself points out, to separate the Lith. *vèrž-ti* from the Gk. *ϝέργω, εἴργω (No. 142) and several words from other languages there collected. The assumed rt. *vragh* is nowhere to be clearly seen. There is also nothing to be said against the older conjecture that βρόχο-ς belongs to *laqueus* (for **vlaqu-eu-s*). On these grounds I leave the question undecided.

connected with *ζόασον*, but in *φλοῖσ-βο-ς* from the st. *φλοιδ* (No. 412 e), and perhaps in the proper name *Θίσ-βη* as well, if it really is connected with the rt. *θες* (p. 520 note). Otherwise Pott W. i. 999. Still more clear is the relation of *ἀλίσ-βη· ἀπάτη* (Hesych.) to the st. *ἀλιτ* (cp. p. 557) *ἀλιταίνω, ἀλείτης*; *ἀλίσ-βη* then is probably for *ἀλιτ-Fη*. — *ἐπίβδα* 'the day after the festival' and proverbially used for 'the morrow' (*τραχεῖαν ἑρπόντων πρὸς ἐπίβδαν* Pind. 'Pyth.' iv. 140), is conjecturally referred by Pott W. i. 29, who follows in the track of the old explanations (Hesych., Lobeck 'Paralipp.' 221), to **ἐπιβάδα*. But neither **ἐπιβάδης* nor even *ἐπιβαίνειν* is ever to be found in the sense of 'succeeding.' The following day is *ἡ ἐπιοῦσα*. Benfey's conjecture (ii. 71), that the word comes from *ἴβδη* 'plug,' is not at all a probable one. Hence we get warrant for the conjecture that *ἐπί-βδα* arose by metathesis from *ἐπι-διFα*, i. e. the same st. *διFα* 'day,' which we arrived at on p. 572 for *δοά-ν*, corresponding to the Lat. *die-s*. We met with another trace of this stem at No. 269. Thus *ἐπί-βδα* would be the next day, just as *ἐπίδαιτρον* is the after meal, *β* arising by assimilation from *F*. The metathesis may be explained by the disinclination of the Greeks and Italians to the combinations *δF*, *δβ*.

After deducting the words just discussed, in which it appeared that there were phonetic grounds to be found for the hardening of the *F*, we are left with but few words in which it seems probable that the same change took place. To these belongs *ἀμείβω* by the side of the Dor. *ἀμεύ-ω* (No. 450), which, as I conjecture, arose from *ἀμεF-jω* and perhaps owes its *β* to the influence of the *j*. — *βίκο-ς* (Eustath.), *βικ-ίο-ν· κύαμος* corresponds to the Lat. *vic-ia* (Pott i[1]. 120), perhaps also to the synonymous Lith. *vikí-s*, Bohem. *vika*, *vikev*, unless these are borrowed from the Germ. *Wicke* 'vetch,' and consequently indirectly from the Lat. *vicia* (Hehn[3] 193, 435). Since the word is expressly declared not to be Attic, and is not quoted from any but late authors, the *β* here is less surprising. — *ἥβη* 'youth,' 'youth's pleasures,' whence *ἡβά-ω ἡβά-σκ-ω, ἡβη-τήρ-ιο-ν, ἐν-ηβητήριο-ν* 'place of amusement,' *ἔφ-ηβο-ς*, etc. were connected, first, I think, by Pott i[1]. 113, with the Skt. *júvan* = Lat. *juven-i-s* (*juven-cu-s*, *juven-ca*,

jūn-ix or *juven-ix* Plaut. 'Mil.' 304 R.), OCymr. *ieuanc*,
189 OIr. *óac* 'juvenis,' Goth. *jugg-s*, Lith. *jáuna-s*, ChSl. *junŭ* 'young.' He explained the η from the Skt. comparative *jáv-ījas*, superl. *jáv-ishṭha-s*. The Zd. *yavan* = Skt. *júvan* also belongs to the latter forms. Benfey ii. 210, Legerlotz 'Ztschr.' vii. 298, Christ 152 follow him in this. We must assume a pre-Greek **jāv-ā*, or perhaps **jāv-jā*. The *a* belongs to that higher phonetic stage which is called in Skt. *Vṛddhi*, and bears to the *a* of *jáv-ījas* the same relation that the η of βῆσσα, i. e. βηθ-*ja*, does to the *a* of βαθύ-ς, or the ω of ῥῶα 'fleece' to the *o* of ὄϊς = Skt. *ávi-s*. It should be noticed that even the Dorians usually retain the η in this stem ('Ahr.' 151). There was, however, a 'Ἀβαῖον in Aegina (Kekule 'Hebe' p. 3). This happens in a few other cases, in which either the stem-syllable itself originally contained a diphthong with ι, as is the case in ἥκω rt. ἰκ (No. 24 c, cp. 'Greek Verb' p. 394), δῆ-λο-ς rt. διϝ (No. 269), ἥρω-ς related to the Skt. *vīrá-s* = Lat. *vir*, Goth. *vaír*, Lith. *výra-s*, or an ι appears in the next syllable, as is the case in ἡμι-, κρηπί-ς, μῆτι-ς, πηκτί-ς, or may be assumed to have existed, as in ἥσσων. Cp. Schrader 'Stud.' x. 319. Since then in ἀμείβω we ascribed the hardening of the ϝ into β to the influence of the originally succeeding *j*, perhaps the simplest solution of the difficulty in the case of ἥβη is to assume **jāv-jā* to have been the primary form. On the suffix *jā*, which is widely spread over all the Indo-Germanic languages, cp. Bopp 'Vgl. Gr.' iii². 336. Sonne 'Ztschr.' x. 176 ventures quite a different etymology of ἥβη, but it can hardly be correct, Fick i³ 492 again another, connecting the word with ἀβ-ρό-ς. This is inconsistent with the meaning, as is rightly maintained by Bezzenberger 'Beitr.' ii. 190, though he in his turn only substitutes for it the still far bolder assumption that it belongs to the Lith. *jĕǵ-ti* 'to be able.' — On φλέψ, stem φλεβ from φλεϝ, cp. p. 302.

In the case of several other stems, for which this transition has been assumed, it must be decidedly rejected, especially in βάζω 'speak' (fut. βάξω, cp. βάξι-ς), where the rt. βαϝ can have nothing to do with the Skt. *vad*, in βαλβί-ς 'threshold,' 'barrier,' 'battlement' which belongs to the rt. βα (cp. βη-λό-ς

'threshold,' *βαθμί-ς*, etc.) and is as far as can be from the Lat. *val-va* 'folding door,' in *βί-α* 'force,' the root of which we saw above (No. 639) to be βι = ϝι, in which *β* therefore is in no case to be traced to the *F* of *Fί-ς* Lat. *vi-s*. With the whole of this section cp. Leo Meyer i. 86.

2. *μ*.

That the labial spirant can change to the labial nasal has been often maintained since Pott i[1]. 223. The comparative study of languages has on this point adopted the doctrine of 590
earlier grammarians of a pleonastic *μ*, reviewed by Lobeck 'El.' i. 114. Bopp 'Vergl. Gr.' i[2]. 38 mentions this change. According to Benfey i. 89 the change of *v* to *m* is 'common and well known,' Legerlotz 'Ztschr.' vii. 135 knows of 'a dozen or so' of words, in which the change takes place; Christ p. 98, 181 ff. gives more than a dozen or so, and Leo Meyer i. 87 about a dozen. Savelsberg 'De dig.' 31 comes very near to my views on the subject. Fick 'Ztschr.' xx. 174 denies this change for ordinary Greek, and Hugo Weber in Fleckeisen's 'Jahrb.' 1863 p. 608 and 'Philol.' xvi. 687 will not allow it at all. On general grounds it is impossible to deny the relationship of the two sounds, though of course it by no means follows from this that they were actually exchanged the one for the other. On looking round for analogies we find, as I am told by my former colleague Dillmann, that in the Semitic languages *m* passes into *v*, and the same change may be perceived in the Teutonic languages. It is doubtful whether the South- and Mid-German dialectic *mir* for *wir* has changed *w* to *m*. Still Schweizer gives a few other instances ('Ztschr.' xii. 309) from German dialects of *m* = *v*, e. g. *munzig* = *winzig*. Conversely the Czechish river *Vltava* has become *Moldau* in German. In the Keltic languages every *m* between vowels becomes *v*, or at least gets a pronunciation like that of *v* (Z[2]. 42, 114). The Lith. *vidù-s* 'the inside,' *vid-ùi* = *μέσσοι*, *vidurý-s* 'middle' was connected at No. 469 with *μέσο-ς*, *mediu-s*, though with a (?) on account of the Slavonic form with *m* and the fact that it is an isolated representative (cp. Fick xx. 174). Since such relations exist between the sounds *v* and *m* there is nothing essentially absurd in the assumption

of a change of the one to the other. Whether or not such a change actually took place will entirely depend on the question whether we can find a list of words containing the two letters, the meaning of which admits of a natural connexion between them.

If we take the Greek words that fall into this category in the order of probability, we shall most naturally begin with *ἀμ-νό-ς*. It seems to me very probable that Benfey i. 116 is right in connecting this with *ὄϊς* = Skt. *ávi-s* (No. 595). It corresponds exactly to the Lith. *ávina-s* 'wether.' Consequently *ἀμ-νό-ς* stands for *ἀϝι-νο-ς* (cp. *λαγ-ι-νό-ς*, *παιδ-νό-ς*) and means properly *ovīli-s*, whence the transition is easy to the meaning 'lamb.' The preservation of the *α* in contradistinction to *ὄϊ-ς* finds an analogy in the Lat. *avilla*[1]. The
591 change of *ϝ* to *μ* may here be explained to be due to the influence of the following *ν*, and we shall have to assume *β* as the intermediate stage (cp. *σεμ-νό-ς* by the side of *σέβομαι*).

We must here place a number of words, in which without doubt an initial *μ* confronts a clearly established initial *ϝ*, and in which the meaning also presents no obstacle to the connexion of the two forms. *ἀλέ-ω* 'grind,' along with *ἄλευρο-ν* 'meal' and the other related words, have been discussed at No. 527, i. e. have been assigned to the rt. *ϝελ*, *ϝαλ*. If then we have good grounds for assuming a form *ϝάλευρον*, we have to choose, in reference to the well authenticated *μάλευρον* = *ἄλευρον* (cp. Stephan. 'Thes.' sub voc., Schmidt ad Hesych. iii. p. 67) between two courses: either with Buttmann 'Lexil.' i. 195 we must derive the rt. *ἀλ*, *ϝαλ* from an older *μαλ*, and consequently identify it with No. 481 Lat. *μυλ* *mol-o*, Goth. *mal-an*—against which view it is especially to be urged that it is very unlikely that the *ϝ*, a sound never a favourite with the Greeks, should have ever taken the place of another, least of all of the very convenient and common *μ*—or we must here allow of the change of *ϝ* to *μ*. For it seems to me hardly possible to

[1] Fröhde's view (Bezzenb. 'Beitr.' i. 327), that *av-illa* is a diminutive of *ag-nu-s* I cannot adopt. Just as little can I agree with Fick ii³. 13 that *ἀμνό-ς* and the Lat. *agnu-s* find a connecting link in **ἀβνο-ς*. For Labialism only occurs before vowels (cp. above p. 459). To *agnu-s* however belongs the ChSl. *agnĭcĭ*.

conceive, in the third place, that different Greek dialects, perhaps, had formed for one and the same idea two words of such peculiar formation, resembling each other in all but the initial, from two utterly unconnected roots. Hugo Weber, who is fond of believing in such marvellous freaks of chance, has only one reasonable objection to urge to my view, i. e. that the *F* of *ἀλέω ἄλευρον* is not positively established. But does it not constantly happen that we have no doubt of the existence of this sound, though every trace of it has disappeared? — *μαλλό-ς* 'tuft of hair,' corresponds exactly to the meaning of the Lat. *villu-s* and of the unquestionably related *vell-us* (cp. *πηγεσί-μαλλο-ς*), which latter words were compared at No. 496 with the Gk. *οὖλο-ς* 'curly,' Goth. *vulla* and *Fέριο-ν*. It follows that *μαλλό-ς* stands probably for *Fαλλο-ς*, though it is true that very discrepant views are held with reference to the word *μῆλον* 'sheep,' which is not far removed from *μαλλό-ς*. Fick 'Ztschr.' xx. 176 connects *μαλλό-ς* with *μαλακό-ς* (No. 457) and the Lith. *mìla-s* 'wool-stuff.' Jac. Grimm 'Gesch.' 33 compares the word with the ON. *smali* 'pecus,' *smal* 'parvus' in the sense of 'small cattle,' in favour of which might be adduced the OIr. *mil* 'small animal.' Hugo Weber 'Etym. Unters.' 82 with *μᾱλό-ς*, *μαλλό-ς* 'white,' 'shining' (cp. *μήλοπα καρπόν η* 104), Pott derives it from a rt. *ma* 592
'resound,' whence too *μηκᾶσθαι* (W. i. 266). In any case I do not see how to connect *μαλλό-ς* with *μῆλο-ν*, for the word really means 'tuft,' for all that Hugo Weber says to the contrary, and is so used Aesch. 'Eumen.' 45, and hence the epithet *δρακοντό-μαλλοι* ('Prom.' 799) applied to the Gorgons and *μαλλω-τὸ-ς χιτών*. The use of the word for 'fleece' as a whole is clearly secondary. — *μελδόμενος* has in Hesych. besides the explanations *μέλδων*, *τήκων*, *φθίνων*, which all come from *μέλδειν* 'melt,' that of *ἐπιθυμῶν* as well; so too *μέλδει*, besides *τήκει*, *ἕψει*, *φθίνει*, has *ἐπιθυμεῖ*. M. Schmidt doubts the correctness of the reading in the latter point. There is no external reason for such a doubt, and hence, though the meagreness of the authority makes us cautious, we venture to compare *Fελδ*, *ἐελδ* (cp. p. 580; cp. *ἕλδομαι· ἐπιθυμῶ*, *ἕλδεται· ἐπιθυμεῖ*, *ἐέλδεσθαι· ἐπιθυμεῖν*, etc. Hesych.). Max Müller ii. 331 holds *ἕλδ-ο-μαι* to be a shortened form of *μέλδ-ο-μαι* and

derives the latter from the rt. μελ (μέλει). But it is difficult on this view to account for ἐέλδ-ο-μαι, which points to a ϝ, nor is there any precedent for the loss of an initial μ. — With μολπίς· ἐλπίς the case is precisely the same. Here too Hesychius is our sole authority. As there is no definite reason for doubting him [1], and ἐλπίς certainly had the ϝ, we put μολπίς by its side at No. 333. M. Schmidt, who notices ὅλπα· ἡ ἐλπίς, contents himself with saying 'falli videtur G. C.,' and at 'Philol.' xi. 397 throws doubt on ὅλπα as well. But what can we do with such rare forms except assign to them the place which phonetic analogy directs? There is, at any rate, no more rashness in this, than in altering the text by daring conjectures, when there is rarely ground for safe emendation. Of course no one can deny that here, as in a hundred other cases, there *may* be a copyist's blunder. — We may also record here an example of μ for υ in the middle of a word. ἄμφην· αὐχήν was formerly only known through Hesych., but had been already connected by Ahr. 'Dor.' 503 with the Aeol. form αὐφήν mentioned at p. 482. M. Schmidt was for emending this too. But meanwhile it has been found in the newly discovered poem of Theocritus v. 28: χρή με μακρὸν σχόντα τὸν ἄμφενα ἕλκειν τὸν ζυγόν. The form teaches us much about the Aeolic pronunciation of the diphthong αυ, which apparently was not very different from αυ. Here the change is clearly, as in ἀμνό-ς and in the MGk. ἐλάμνω = ἐλαύνω (Mullach 'Vulgarspr.' p. 90), the result of assimilation. Still Joh. Schmidt 'Vocal.' i. 182 gives an entirely different explanation of it: he takes ἀγχήν to be the primary form and compares this with the
593 OHG. *ancha* 'neck.' If we took ἀγχ to be the root, the φ of αὐφήν, ἄμφην might be defended by the arguments used on p. 481 f., but the diphthong αυ could not be accounted for at all.

In the case of a second group of words we must be more chary still. μί-το-ς 'thread' is connected by Lobeck 'El.' i. 115 with *ἰτέα vīmen*, the root of which is undoubtedly ι, *viere* (No. 593), a conjecture, but nothing more. — μόσχο-ς 'sprout,' 'twig,' 'rod,' and ὄσχος (also ὦσχο-ς and ὄσχη)· ἀμπέλου κλάδος κατάκαρπος (Athen. xi. p. 495) not used, it seems, till late in the general sense of 'twig.' Several etymologies are possible

[1] [Cp. however J. B. Bury in 'Hermathena' No. xi. p. 269].

for the former word (cp. A. Weber 'Ztschr.' v. 234). It is easy to connect *ὄσχο-ς* with *ὄζο-ς*, of which it might be the diminutive (for *ὀζ-ισκο-ς*), but *ὄζο-ς* is itself of doubtful etymology. For if we refer *ὄζο-ς* to *ὀσ-δο-ς* (*σδ* being transposed to *ζ*) we get a form which agrees with the Goth. *ast-s*, but I cannot see how the *δ* is to be explained. Fick's conjecture (i³. 504) that the words belong to the Skt. rt. *as* 'throw,' 'shoot' (cp. a 'shoot') is ingenious but bold. Bezzenberger ('Beitr.' iv. 359) connects *ὄζο-ς* with the Lith. *ĩgis* 'growth,' 'shoot.' — The homonymous *μόσχο-ς* 'calf' has (Leo Meyer i. 87) been connected with *vacca* and the Skt. *ukshán* 'bull,' under the assumption that the Latin word presupposes a form *vacsa*, the Indian word a form *vaksan*. But if the 'Pet. Dict.' is right in connecting the latter with the rt. *uksh* 'besprinkle,' it will suit neither *vacca* nor *μόσχο-ς*. It seems better with Fick and others to compare *vacca* with the Skt. *vaçā́* 'woman,' 'cow,' mentioned at No. 19. — *μονθυλεύειν* and *ὀνθυλεύειν* 'stuff,' 'adulterate,' are exactly synonymous. Their origin is however obscure, and of the digamma there is not a trace. — It sounds as if *μηρύ-ω* (*μ* 170 *ἱστία μηρύσαντο* 'they drew the sails together') was originally identical with *ἐρύω* 'draw.' But the comparison becomes extremely doubtful when we find on further investigation that the special meaning of *μηρύειν* is 'twist,' 'wind' (Theocr. i. 29 *κισσὸς μαρύεται περὶ χείλη*), that the substantives *μήρ-ινθο-ς* and *μέρ-μι(θ)-ς* 'cord,' 'thread,' cannot possibly be separated from it, and that we find for *μήρινθο-ς* a by-form *σμήρινθο-ς* as well, while *ἐρύω*, though it shows traces enough of the *F*, has neither the meaning 'wind' nor an initial *σ*, nor the same vowel. — Bugge's remarks ('Ztschr.' xx. 4) on the relation of *μορφή* to the Vedic *várp-as* 'image,' which are supported by the 'Pet. Dict.,' are at all events not convincing.

There is more uncertainty still about a third list of words, which for the most part admit with equal probability of en- 594
tirely different etymologies. That e. g., as Christ 182 maintains, *μάλα* (cf. *μαλερό-ς*) is identical with the Skt. *vara-s* 'eximius,' is extremely doubtful. We might with at least equal probability connect it with the Lat. *val-ē-re* and the Skt. *bála-m* 'strength,' *bál-ishṭha-s* 'fortissimus' and the ChSl.

vel-ij, *vel-ikŭ* 'magnus' (cp. Pott W. i. 561). Since however two distinct conjectures of equal probability are mutually destructive, we are content with regarding the comparative *μᾶλλον*, i. e. *μαλιον*, as the correlative to *melius*. — *μεῖραξ* 'girl,' later 'boy' as well, *μειράκιον* 'boy,' both with diminutive endings, Christ 257 (cp. Lobeck 'El.' i. 114) and Leo Meyer i. 87 connect with the Laconian *εἴρην* (st. *εἴρεν*), the name at Sparta for youths of twenty and upwards. But the latter word, whose forms are discussed by O. Müller 'Dorians' ii. 296, shows no trace of *ϝ*. Cp. Joh. Lissner 'Zur Etymologie von *εἴρενες*' Programm of Eger 1863. On the other hand, as Delbrück points out to me, we find in Sanskrit *márja-s* 'man,' 'youth,' *marja-ká-s* 'mannikin.' The only difference between *μεῖραξ* (st. *μειρακ* for *μερj-ακ*) and *marja-ká-s* is that the former has not a vowel at the end of the stem. — The Zd. *maretan* 'man' must also belong to it. Whether these words come from the rt. *mar* 'die' (cp. *βροτό-ς*) must be left an open question. — *μία* by the side of *ἵα* might point to *ϝία*, it is true, but we have shown at No. 599 that *μία* admits also of another explanation. — We recognized ὀδυς (No. 290) as the Gk. form of the Skt. rt. *dvish* 'hate,' and hence we can admit of no connexion of the latter with *μῖσ-ος* 'hate' and *μισέω* (Christ 261). The OIr. *miscuis* 'hate,' *miscsech* 'exosus,' Z². 787 and, next to these, the Lat. *mĭser*, *maes-tu-s*, which have retained the *m*, seem more likely to be connected with the Gk. words. (Cp. Corssen i². 377.)

We now come to the cases in which the change under discussion has been asserted for the middle of a word, but not proved. — *ἦμος* and *τῆμος* have been compared with the Skt. *jāvat* and *tāvat*. I think I have shown in the 'Rhein. Mus.' 1845 p. 249 ff. that a different temporal relation is expressed in the two cases, and that the Gk. words would find their equivalent rather in the ablative form *jasmāt*, *tasmāt*. Since *jāvat* and *tāvat* have in *ἦος*, *τῆος* (No. 606) their exact Gk. equivalents both in sound and meaning, the other explanation, which appeals to the chance of the splitting up of a single form both in sound and sense into two distinct developements, loses all probability. — The attempts at explaining the *μ* in *ἦμαρ*, *ἡμέρα* to be from *ϝ* are not at all convincing, for the suffix

-μαρ is quite clear in *τέκ-μαρ* (No. 235), that of *ἡ-μέρα* may be compared with that of *ἴ-μερο-ς* (No. 617). Of the various at- 595
tempts to discover the root of the word the best is that of Ascoli ('Krit. Stud.' 310). He derives the word from the rt. *vas(us)* 'shine,' 'flash.' The only objection to this is that though the word occurs so often it shows no *F* in any dialect. It is true that Ascoli's keen eye detects a trace of it in the adverb *σήμερον, τήμερον* as he explains *l. c.* — *πιμέλη* 'fat' belongs no doubt to the rt. πī (No. 363), but it is much more probable that the *μ* belongs to the derivative element (cp. *θυ-μ-έλη*), than that it represents *F*. — It is doubtful whether *κάμῑνο-ς* 'oven' belongs to the rt. κα*F* (No. 44), since in view of the Skt. *áç-man* 'stone,' *aç-manta-m* 'oven,' the word has not unreasonably been connected with the rt. *aḳ* (Joh. Schmidt 'Root AK' p. 66); but even supposing the word to be connected with *καίω*, the change of *F* to *μ* would not be established (cp. *ὑσμίνη*, No. 608). — On *λελειχμότες* by the side of *λιχμάω* cp. p. 491.

We are left at last with forms in which the *μ* cannot be shown with any semblance of probability to have come from *F*. *μασχάλη*, which Pott i[1]. 223 and others compare with the Lat. *axilla*, has nothing to do with it. *axilla* the diminutive of *āla* (Schwabe 'De deminut.' p. 98) belongs to the Gk. *ἀκχό-ς* (No. 4), which had without doubt a vowel initial. — The *μ* of *μελίνη* which confronts the Laconian form *ἐλίνη* given by Hesych.—if we are to trust the reading at all—is placed beyond a doubt by the synonymous Lat. *milium* 'millet,' which does not look like a borrowed word. Hehn[3] 495 conjectures a connexion with *μέλι*. — The assertion, now pretty generally abandoned, that *μέχρις* and *ἄχρις* alike both come from *Fαχρις* has not the smallest foundation. *μέχρις* seems to be connected with *μετά* (Pott i[2]. 289). For a conjecture on *ἄχρις* see No. 166. — The comparison of *μηρό-ς* 'thigh' with the synonymous Skt. *ūrú-s*, maintained by Benfey i. 81, since it would need the assumption of an intermediate form **vāru*, will hardly find acceptance. Bezzenberger ('Beitr.' i. 340) now connects *μηρό-ς* with the ChSl. *męzdra* 'membrana' (cp. *męso* 'flesh,' Goth. *mimz*) and the Lat. *membru-m*, in which case *μηρό-ς* would stand for *μεμσ-ρο-ς*. To the same group belongs the Skt. *márman* 'joint,' 'soft part

of the body.' — Still more futile is the comparison of *μύδ-ο-ς* 'moisture' with the Lat. *vad-u-m* 'ford.' On the rt. μυδ see No. 479. *vŏd-u-m* cannot be separated from *vād-e-re* (p. 473). — *μύδ-ρο-ς* too can be explained by the same rt. μυδ, so that there is no need, as has been conjectured, to go to the rt. *svid.* — On *μίν*, which Christ 258 connects with the Skt. *sva*, preserved in the Gk. *Fε*, *σφε*, we have above
596 (p. 543) passed a different and, I think, more probable judgement. Other conjectures may here be passed over. As it is, we have in this case ventured on a somewhat longer discussion than the plan of this book admits of in general. It seemed important, however, to investigate more minutely the extent of the change and the degree of certainty in single instances. The main result we have thereby arrived at is, that the change of *F* to *μ* is probable for only a *very few* Greek words. It is hardly more common than the interchange of *β* and *μ*—e.g. in *βαρνάμενον* = *μαρνάμενον* (Ross 'Jahn's Jahrb.' 69, 545), *βέλλειν· μέλλειν* (Hesych.), *βύρμηξ* = *μύρμηξ* (No. 482),—which is confined to particular dialects, and is thoroughly discussed by Roscher 'Stud.' iii. 129.

3. γ.

The relation of *γ* to *F* has been already noticed above (p. 442). We meet with an undeniable change of *v* to *g* in the Romance languages in the case of initial *v*: Lat. *vastare*, Ital. *guastar*, Fr. *gâter*, Lat. *vulpe-s*, Ital. *golpe*, Lat. *vespa*, Fr. *guêpe*, and no one doubts that a *g* here prefixed itself to the *v* and then afterwards expelled it. Even the Teutonic languages show some instances of this change. The *g* of the Goth. *bag-m-s* *δένδρον* corresponds according to Jac. Grimm to the *u* of *bau-an*; according to Pott W. i. 1176 the word comes from the rt. *bhu*, Gk. *φυ*—*bag-m-s* answering to a possible Gk. *φυ-μο-ς* in the sense of *φῦμα*, *φυτόν*, *φύτευμα*. Otherwise however Delbrück 'Ztschr. f. d. Philol.' i. 11. Just so the Goth. *triggv-s* 'true' comes from the root of the verb *trau-an*, in this case with nasalization as well. Here even Schleicher (Comp.[3] 321) admits the origin of *g* from *v*. Other Teutonic dialects as well show *g* proceeding from *v*, e.g. the Low-Germ. *negen* (OS. *nigen*) = Goth. *nium*, MHG. *niwen*, Skt. *návan* (No. 427).

Richert 'Bidrag till läran om de konsonantiska ljudlagarna' (Upsala 1866) p. 377 adduces the Swedish *lager* = *laurus*, dialectic *Olagus* = *Olaus*. In the modern Persian languages an initial *v* changes very often to *g* (Fr. Müller in Kuhn and Schleicher's 'Beiträge' ii. p. 498 f.). On an Armenian *g* as representative of *v* cp. Hübschmann 'Ztschr.' xxiii. 16. Examples are: *gail* = Skt. *vṛ́ka-s* 'wolf,' *tagr* = Skt. *dēvar*, Gk. *δαήρ* 'brother-in-law,' cp. AS. *tâcor* (No. 257). In the British languages not only does every initial *v* become *gu*, e.g. in *guin* = Lat. *vinum*, *gwr* = Lat. *vir* (Z². 127), but also a *v* in the middle of a word, e.g. in *petguar* 'four,' cp. Ebel 'Ztschr.' xiii. 285. It has been denied, especially by Schleicher ('Comp.'³ 235) and Corssen ('Beitr.' 70, 'Nachtr.' 82, 'Ausspr.' 597
i². 89), that *g* arises from *v* in Latin. Five Latin verbs show in the perfect and perf. pass. participle the addition of a guttural to a shorter stem ending in *v* or *u*: *vīv-o vixi*, *co-nīv-e-o co-nixi*, *flu-o fluxi*, *stru-o struxi*, *fru-o-r fruc-tu-s*. It seemed most natural to explain this guttural by supposing that before the *v*,—whether original, as in *vīv-o* or developed from the *u*,—a parasitic *g* introduced itself, and subsequently passed into words and tenses derived from the stem. But at the same time some of these stems show traces of a guttural in other languages besides Latin, e.g. besides *frug-e-s*, *frug-i*, *fruc-tu-s* we get the Goth. *brukjan* [Germ. *brauchen*] 'use' (cp. note to No. 158), besides *con-flug-e-s*, *fluxi* we get the Gk. *οἰνόφλυξ*, *φλύκταινα* (No. 412 d), besides *co-nixi* we have the Lat. *nic-ere* 'wink' (Plaut. 'Truc.' ii. 1, 63), all of which can hardly be satisfactorily explained in this way. I therefore admit that the change of *v* to *gv* and subsequent *g* in Latin, which has again found an advocate in Joh. Schmidt 'Voc.' ii. 287, is not established. It is better to regard the guttural in some of these words as belonging to the root, in others, as in *flug* by the side of *flu*, *strug* by the side of *stru*, as a root-determinative, so that *stru-g* would bear to *stru* the same relation as *ju-g* (p. 62) to *ju*. In the case of *vixi* the view that it came from a reduplicated *gi-giv*, discussed by Corssen i². 389 is possible, although, as Ascoli shows 'Fonol.' 131, there are difficulties to be met here too.

Doubts have been expressed as to the occurrence of this

change in Greek. The numerous glosses of Hesychius, in which an initial γ appears in the place of ϝ, have been already explained by some older commentators to be blunders of copyists who wrote Γ by mistake for ϝ. But Buttmann 'Lexil.' ii. 116 declares himself against this view, aptly referring to the Romance words just mentioned. Giese 'Aeol. D.' 293 recommends a middle course, assuming on the one hand that a phonetic change of ϝ to γ actually took place, but admitting on the other that some of the glosses just mentioned were placed under the letter Γ by mistake. Ahrens again 'Dor.' 52, followed by Christ 183, will only admit the Γ in the glosses in question as the sign for ϝ, and so reads γάδεσθαι simply as ϝάδεσθαι, γέμμα as ϝέμμα. At the same passage all the Hesychian glosses with which we are here concerned are adduced. The reasons for and against have been well weighed in different quarters, but there are nevertheless one or two points making for the phonetic change which have been overlooked. The supporters of the view that γ means the sound ϝ, rely mainly on the consideration, that otherwise there would be no trace of this important sound to be found in
598 Hesych., and this they cannot believe possible. But I see no weight in this argument at all. The Lexicon follows the alphabet of its time, which had long lost the sign ϝ. The *sound* of the *v* was at that late period most naturally represented by β, and we have in fact under β a large number of glosses in which β was in all probability pronounced ϝ, although we often find it impossible to distinguish those in which the real medial β actually arose from ϝ. If then any letter can be regarded as the written representative of ϝ it is not γ, but β. More weight attaches to Ahrens' remark that the words adduced under γ belonged in part to such dialects as, like the Lesbian, Boeotian, and Laconian, retain the ϝ unaltered elsewhere, e.g. γέμμα and γῆμα· ἱμάτιον, i.e. ϝεσ-μα. For glosses of this kind we may regard as very probable the conjecture admitted by Giese too, i.e. that they were taken from older lexicons, which were no strangers to the sign ϝ, and were all placed together by a mistake under Γ, just as one or two digammated words have been placed under Τ, which resembles the digamma in form alone. It is im-

possible to decide whether the reading γουάναξ, γουελένα, γούρηξις, in the grammarian in Bekker's 'Anecd.' 1168, also proceeds from a simple confusion of *F* with γ. It is certain that we do find γ in the place of *F* even in the middle of words, e. g. in the Pamphylian Νεγόπολις = *Νεϝόπολις (Siegismund 'Stud.' ix. 91) in an inscription, though in the words given by the grammarians there *may* be nothing but the writing of one letter for another, but here the mistake must be supposed to have been made afresh each time that γ was so written. There is no doubt that γ stands for *F* in the middle of the glosses ἀγατᾶσθαι· βλάπτεσθαι, ἀγάτημαι· βέβλαμμαι, as Ahrens p. 55 admits in a measure. The forms belong so clearly to αὐάτα = ἄτη in Pindar that there is no reason for the alteration, proposed by M. Schmidt following Lobeck 'El.' i. 162, into ἀτάτημαι. In Aesch. 'Ag.' 730 again Meineke is perhaps right in reading ἀάταισιν. If e reflect then that, if the sound *υ* occurred in the word explained by the lexicographer, it would be expressed much more simply by β, or, after a vowel, by *υ*, it is far more probable in this case, that there was a phonetic change of *F* to γ.—The tradition also preserved in Hesych. and given in the 'E. M.' 167 on the authority of Herodian, that ἀτρύγετος[1] like ἄτρυτος (cp.

[1] Joh. Schmidt 'Voc.' ii. 337 takes ἀ-τρύγ-ε-το-ς as 'not to be dried up,' connecting τρυγ with τρυγεῖ (or τρύγει)· ξηραίνει, ἔτρυγεν (Meineke ἐτρύγη)· ἐξηράνθη, ἐπὶ λίμνης Hesych. But these glosses furnish but very little proof of a verb *τρύγειν 'dry.' The only passage thought to contain the word, Nicand. 'Ther.' 368 ἀλλ' ὅταν ὕδωρ σείριος αὐήσῃσι, τρύγη δ' ἐνὶ πυθμένι λίμνης contains an insufferable tautology if with the older Schneider (Lobeck 'Rhem.' 51) we read τρύγη δ' ἐνὶ πυθμένι λίμνη, while it gives a good sense if with the scholiast we take τρύγη to be a substantive denoting the 'dry bed' of the lake. The doubtful rt. τρυγ has now been provided with two cognates outside Greek: Fick i³. 598 connects it with the Lat. *tergere*, the meaning of which does not at all suit a drying lake, and with the ON. *thurk-r* 'drought.' Joh. Schmidt refers the γ of τρυγ to an older χ (cp. above p. 526) and can so connect the hypothetical rt. τρυχ with the AS. *dryge*, Low Germ. *drög*. This is, on the face of it, a very complicated assumption. And as to the meaning, while for the sea we can allow the meaning 'not to be dried up,' it can hardly suit the aether, though Joh. Schmidt reminds us of the dew it produces. This interpretation

599 Ἀτρυτώνη) meant ἀκαταπόνητος 'not to be rubbed away,' 'untireable' (cp. Clemm 'Stud.' viii. 87) gains credit perhaps from the fact that the derivation from τρυγᾶν 'reap' leaves the ε entirely unexplained. We should then have in this word a very old instance of the phonetic change of ϝ to γ. If so, the ϝ must have developed itself at a still earlier time from the preceding υ, and ἀ-τρύ-ε-το-ς would be a companion to ἀ-τί-ε-το-ς; 'not to be rubbed,' i.e. 'worn away' would be undoubtedly a suitable epithet of the sea with its untiring motion (Lobeck 'Prolegg.' 145), as also of the aether, the everlasting, in spite of all its storms (*P* 425). Perhaps the γ owes its survival to the fact that the Rhapsodes early adopted the derivation from τρυγᾶν. — The s me applies to μώλυγερ· τὰ ἄνοζα ξύλα, a gloss whose final ρ shows it to be Laconian. The form is for *μωλυϝες, identical with the Lat. *molles*, i.e. *molv-es* (No. 457). Used metaphorically we find μωλύτερον· ἀμβλύτερον, μῶλυ-ς· ὁ ἀμαθής, μωλύεται· γηράσκει. We have met with similar phonetic developements of ϝ from a preceding υ already (p. 586) in ὀρούβω, ἀριστεύϝοντα, etc. (Cp. Savelsberg 'Dig.' 28.) — Baunack's conjecture ('Stud.' x. 60) is at all events an ingenious one—that in Hesychius's gloss ἀγωγίς [better ἄγωγις]· ἄγωμεν· Ἀργεῖοι there is contained a first pers. dual identical with the Skt. *aǵā-vas*. It is possible that the same is the case with the Hesychian gloss ὀφρυγή and ὀφρυγνᾷ, the former of which is explained by χρῶμα (perhaps a mistake for ὀφρύωμα), λόφος, αἱμασιά, and the latter by ὀφρυάζει. ὀφρύη is a form of actual occurrence, and in the Aeolic poem of Theocr. 30, 7 the reading δι' ὀφρύγων has sufficient MS. authority. — A Latin *v* is rendered by γ in the glosses γέντερ· ἡ κοιλία and
600 σεργοί· ἔλαφοι, i.e. *cervi*. The glosses are important as witnesses to the assibilating pronunciation of the Lat. *e*, and thereby indirectly to the time at which such glosses were collected. It is certainly possible to conjecture that γ is here only the written, not the phonetic representative of the labial spirant.

brings the dew-producing power of the aether too much into the foreground. — It is enough to condemn Fritz Schöll's interpretation 'born of the darkness' ('Acta soc. phil.' Lips. iv. 325) that the assumption that there is a rt. τρυ 'to be dark' has nothing but the Lat. *trux* to support it.

4. Further changes.

As a labial the digamma has a certain relationship to φ. But it must appear *a priori* improbable that the aspirate, which consists of an explosive with a breathing following it, should without any external inducement develope itself from the far weaker labial spirant. The only instances of this change, that can be pointed out, are to be found in two classes of words; first, in certain words in out-of-the-way dialects, in which the lack of a customary sign for the actually existing sound *v* led to the adoption of the φ which in its later pronunciation as a spirant was somewhat similar; and next after a preceding σ, which, as a hard sibilant, assimilated the spirant to itself, that is, hardened it into the aspirate. On an inscription from Aspendos we read ἀγύρυ μνᾶς φίκατι for ϝίκατι (Gust. Hirschfeld 'Berl. Monatsb.' 1875 p. 123). ϝέσπερε, πάντα φέρεις is now rightly read in Sappho 95 (Bergk[3]), since only 'Et. Gud.' gives φέσπερε, the other sources ἕσπερε. — λαῖφα· ἀσπίς (Hesych.) is proved, as Ahrens 'Dor.' 49 shows, by the glosses λαίβα· πέλτη, λαῖτα (with a copyist's error of *T* for ϝ)· πέλτη, λαίας· ἀσπίδας Κρῆτες, to be identical with λαιϝα (No. 533). λαφός· ὁ ἀριστερᾷ χειρὶ χρώμενος is however probably nothing but the Latin *laevus*. — Savelsberg 'Ztschr.' viii. 407 conjectures that συφεό-ς (κ 389 συφειοῦ) 'pig-sty' was developed from συ-ϝ-εό-ς. Fick i[3]. 699 takes the word as 'pigs' *building*,' identifying -φεο-ς with the Lat. *favu-s*. — It is a mistake to take φέννος φόνος, ἐνιαυτός, which has been compared in the latter meaning with γέννος ἀρχαῖος, as an instance of φ = ϝ. The genuineness of both words is rendered doubtful by their position, and the latter in particular is among surroundings that thoroughly justify M. Schmidt's asterisk. As we have shown at No. 428 that in ἕνο-ς 'old' the original initial was the sibilant, there is no establishing the digamma at all. — We must reject the comparison, first attempted by Savelsberg viii. 407, of φιερός = φιαρός 'bright,' 'shining,' with ἱερός, as the latter had originally a vowel initial (No. 614). — There are however three clear instances in which the ϝ hardened itself unmistakably under the influence of σ; first the pro-

601 noun-stem σφε, the by-form of ϝε, ἑ = Skt. *sva* (No. 601), on which it is enough to refer to p. 443. That, as Ebel 'Ztschr.' xiii. 286 assumes, the phonetic process consisted in the first place in the introduction of a π before the ϝ, and that the latter fell out in time, I think has not been made out. — We assumed the occurrence of the same change at No. 575 for σφόγγο-ς. — The stem of the personal pronoun of the second person in the dual σφω is developed in a similar way from the singular *tva* (1 s. Skt. *tva-m*). Here the first step was the changing of the *t* to σ under the influence of the *v* (cp. τεσσαρ = Skt. *ḱa-tvar*), the next the change of *v* to φ under the influence of the σ. The Graeco-Italic *o* (σφο and *vō-s*, *vō-bi-s*) is remarkable, as it also establishes the agreement with the Skt. *va-s*, etc. (Bopp 'Vgl. Gr.' ii². 127). — In Irish an original initial *v* is regularly represented by *f*, e.g. in *fer* 'man,' Lat. *vir*, *fiche* 'twenty,' Lat. *viginti*. The pronoun-stem *sva* seems to be present in the OIr. *feib* 'as,' probably a reduplicated formation like the Goth. *svasve*, and further in the remarkable for forms 'self' *fesin*, *féin*, *fadesin* Z². 366.

Of the change, still more improbable in itself, of ϝ to π probably the only instances of any validity are σπόγγο-ς (No. 575), in which π varies with φ, and λισ-πο-ς for λιτ-ϝο-ς (No. 544), where it is explained to be due to the influence of the sibilant. The Doric form Πάξος, as the MSS. in Skylax p. 19 have it (Voss and others 'Οαξός) by the side of Ὄαξος, ϝάξος, is very problematical, inasmuch as the reading is by no means certain. — Even if the Cretan ΠΟΛΧΟΣ really meant 'people' as was assumed, it would not be identical with ὄχλος or *volgus*. But Roscher shows at 'Studien' ii. 1, 154, that there is not the smallest warrant for the assumed meaning, and that it is more likely that the word, which is found on a few coins from Cnossus, is a proper name—probably nothing but the syncopated by-form of Πόλιχος. — ἀμπέσαι Lacon. = ἀμφιέσαι, which Ahr. 'Dor.' 357 explains to be ἀμ-ϝέσαι, clearly owes its π to the operation of the φ in ἀμφί, although it is not easy to see how the following ϝ could arrest the process of aspiration. The case of ἀμπ-έχ-ω is not analogous.

The assertion that ϝ can become κ or χ is made good neither by Christ (184) nor by Savelsberg (35). ἐδήδο-κα

formed on the analogy of ἐμήμε-κα with the perfect termination -κα is no proof at all of it. On the entirely isolated ἐδή-δοϝα see above p. 505.

The change of ϝ to ρ after a consonant; of which there is little evidence, has been treated of at p. 455.

Savelsberg, it is true, is for assuming the change of ϝ to the dental σ, a sound as foreign to it as possible, but it is hardly likely that he will find any one to agree with him.

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2. Transformations of the J. 602

I. Traces of the existence of the *j* in Greek.

'The palatal spirant *j* is to be found in its proper form in no Greek dialect, for the simple reason that the Greek alphabet never had a special sign for it. The loss of this consonant is one of the chief peculiarities of the Greek language, shared by all its dialects, as far as any written records that we have can tell us.' Hitherto we have been driven to the conclusion above given. The welcome addition which our knowledge of Greek has received by the discovery of the Cyprian syllabary revealed, among other things, characters which have been interpreted with probability as *ja*, *je* (Deecke-Siegismund 'Stud.' vii. 222 ff., Hartel 'Homer. Stud.' iii. 39, Joh. Voigt 'De titulis Cypriis,' 'Leipziger Studien' i. 253 ff.), e. g. in the words ἰjᾶσθαι, ἀδριjάταν (= ἀνδριάντα), ἰjερέος. It is remarkable that these sound-groups never began a word, and occur in the middle only of words in which a *j* has been developed on Greek soil from a preceding ι, just in the same way as in the Cyprian dialect, a υ often produces the corresponding υ (κατεσκεύϝασε). In its disinclination to the palatal spirant Greek resembles Old-Irish, which suffered the same loss, and the Norse languages, in which an initial *j* is very generally dropped (Grimm 'Gr.' i. 322), e. g. OIr. *óac* (OCymr. *ieuanc*), ON. *ung-r* = Lat. *juvencu-s*, Germ. *jung*. But the surviving effects of this letter in Greek may be traced to an almost greater extent than those of the digamma. They are more various, though they are in part more difficult to explain.

There is a mass of evidence in the Homeric poems of

the survival of an initial *F*. The question is, do these oldest of Greek monuments furnish any similar metrical indications of the *j*? In the 'Philologus' iii. 6 ff. I have discussed this question with reference to two words of frequent occurrence. The facts of the case no one doubts. The case is the simplest with the ὥς which follows its word, and for it I may refer to I. Bekker 'Homer. Bl.' i. 204 and to Knös 'De digammo' 166. According to the reckoning made by the latter, forty-four Homeric verses (after deducting twenty-three repetitions) point to a consonantal initial (κακὸς ὥς *Z* 443, κύνες ὥς, θεὸν ὥς — μελίη ὥς, λύκοι ὥς *Δ* 471), twenty-three are against it (after deducting seventeen repetitions, e. g. θεὸς δ' ὣς τίετο δήμῳ *E* 78), the rest give no indication either way (e. g. κύων ὥς *O* 579). This state of the case led I. Bekker to assume that
603 ὡς was related to the pronoun of the third person, and a further result of his conclusions was the writing *F*ὡς where the verse allowed it. But there are special difficulties in this course. In no other position does ὡς show the faintest trace of a consonantal initial — e. g. not in σαώτερος ὥς κε νέηαι *A* 32, Θέτις δ' ὡς ἥψατο γούνων *A* 512, ἀλλ' ἄγεθ' ὡς ἂν ἐγὼν εἴπω *B* 139. There remain therefore but two courses open to us. Either we must hold that this distinction in the case of the postposed ὥς is one of the many accidents which must be admitted to have happened in the preservation of the *F* in Homer, or else we must show special grounds for it. The number of instances is such as quite to preclude the supposition of chance. Besides ὡς 'as' is unmistakably the adverb, i. e. it is originally the ablative of the rel. pronoun ὅ-ς = Skt. *ja-s* (No. 606) and so far corresponds to the Vedic particle *jāt*. The use of this somewhat rarely occurring particle agrees in some points exactly with the customary uses of ὡς, e. g. *jāk-khrēshṭhá*, i. e. *jāt-çrēshṭha* 'as well as possible' ὡς βέλτιστα ('Pet. Dict.'). Consequently there is nothing to establish the *F* for ὥς. Notwithstanding Leo Meyer has recently ('Ztschr.' xxi. 351 ff.) vigorously attacked my assumption that we here have to do with an effect of the *j*. His own view is that 'the postposed ὥς does not belong to the relative pronoun at all, but to the stem of the reflexive pronoun σϝε, ϝε.' In that case we should have to assume that there were two

different ὡς — that in phrases like τῶν πάντων οὐ τόσσον ὀδύρομαι ὡς ἑνὸς X 425, μαίνετο δ' ὡς ὅτ' Ἄρης O 605 the comparative ὡς was of relative origin, but not in ὄρνιθες ὥς, φυτὸν ὥς; that the former came from *jāt*, the latter from *svāt*, and that it was a simple chance that ὥς τε in its comparative use, e.g. in ὥστ' ἀμητῆρες Λ 67, ὥστε κρήνη μελάνυδρος Π 3 had exactly the same force as the postposed ὥς. It will be admitted that this makes great demands on our faith. On the other hand I see nothing prodigious in the assumption that in certain formal phrases in which the ὡς was, contrary to its later use, put after its word, the power of the initial of ὡς to remove a hiatus and make 'position' survived, owing to the unbroken tradition of the Homeric poets, from the time when a fully sounded *j* still existed at the beginning of the word. We have seen at p. 562 similar instances of the surviving effects of lost sounds in the Romance languages. Indeed this assumption seems to me to supply a sufficient explanation of the two-fold treatment of the initial of this word in Homer. But it is no use expostulating further with anyone who can believe that there were two distinct words ὡς meaning 'as,' and that it happened that the one supposed to have had an initial ϝ has only survived as a postposed particle. Did anything ever so happen elsewhere?

The case of ἵεσθαι is harder to settle. In two points there 604
is a remarkable phonetic distinction in Homer between the active ἱέναι and the middle ἵεσθαι. The ι in the active is almost always short, very rarely long (πρόσθεν ἵεν Μ 33 — ὣς φάσαν ἱεῖσαι ὄπα μ 192), on the other hand in the middle it is long fifty-nine times and hardly ever short. Before the active forms there is, with the exception of ἧκε (e.g. ἄστερα ἧκε Δ 75) in a few verses, no clear trace of a striking hiatus. It is only from ἕηκε εἶσαν ('Greek Verb' pp. 80 and 85) that we can deduce the existence of the consonantal initial for an earlier period. The middle however shows a hiatus in twenty-nine cases before the forms beginning with ι (ὃ δὲ ἵετο Λ 537, οἴκαδε ἱεμένων Β 150), and only four passages do not admit of a consonantal initial (ἄμφω δ' ἱέσθην Σ 501). Moreover in the active the physical meaning 'send,' 'throw' is the prevailing one, in the middle the metaphysical meaning

'strive,' 'desire.' In spite of these differences it is only recently that any doubt has been expressed as to the connexion of the active and the middle. That they were the same verb is made probable in the first place by the complete similarity of their inflexion, and this argument is made still stronger by the comparatively small number of the verbs in *μι*. *Moreover even in Attic Greek the quantity of the ι is variable.* Here the vowel is *long* as a rule in the active as well and a *ῐ* is an exception (Nauck 'Philol.' xi. 464, Veitch 'Greek Verbs' p. 293). Finally the Homeric meaning 'desire' for *ἵεσθαι* is very common in the Attic poets (Ellendt 'Lex. Soph.' s. v.) and *ἐφίεσθαι* which is common in Attic prose and poetry has exactly the same meanings as the simple verb. Are we to suppose that *ἐφίεσθαι*, e. g. in phrases like *ἀλόχου* (Eur. 'Hel.' 1183), *ἀρχῆς* (Thuc. i. 128), *τυχεῖν* (Soph. 'Phil.' 1315) *ἐφίεσθαι*, has nothing at all to do with that poetical *ἵεσθαι* and was developed, in exactly the same meaning, by a pure chance, from *ἵημι*? This is what Leo Meyer is driven to assume, for he repeatedly (last in Bezzenb. 'Beitr.' i. 301) and emphatically maintains that the active and the middle come from different roots. The Attic *ἐφίεσθαι* 'desire' shows by its related noun-forms *ἔφεσις*, *ἐφετικός* (*ῥήματα ἐφετικά* 'verba desiderativa') that it can belong to no other root than *ἑ*. It will be seen from all this that it is worth while to attempt to explain the discrepancies between the active and the middle without severing the connexion between them. This attempt I made at 'Philol.' iii. 5 ff. Without being prepared to make good every particular assertion in a paper written thirty-three years ago, I still think that in its main idea it was right. To begin with the meaning: there is no lack of instances of the passing into each other of the meanings
605 'send' and 'strive.' Passing by phrases like our 'to throw oneself into a thing' we find even in the active e. g. of *ἐφιέναι* in Homer many instances of the meaning 'to urge on' (*ὅτε μ' ἐχθοδοπῆσαι ἐφήσεις* *A* 518, *οἶνος ὅστ' ἐφέηκε πολύφρονά περ μάλ' ἀείσαι* *ξ* 464). It is not a long step from this use of the active to *ἵεσθαι*, *ἐφίεσθαι* 'to have oneself driven,' 'strive.' Even the simple *ἱέναι* shows traces of an intransitive use, e. g. *ἵησι* 'flows' *η* 130, *λ* 239 and in the sense of 'dashes,'

'fertur' Aesch. 'Pers.' 470 ἵησ' ἀκόσμῳ ξὺν φυγῇ. I believe that ἵημι is a reduplicated present of the rt. ἑ = Skt. *jā* 'go,' 'draw,' and that consequently its original form was **ji-jη-μι*. That, as Leo Meyer puts it, this present is 'all in the air' is true to this extent that there is no Indian **ji-jā-mi*, but Leo Meyer's **si-sā-mi* has no support in Sanskrit either, and only a very doubtful one in the Lat. *se-ro* for *se-so*. At all events *vīja* (from the stem *vī* 'desire') assumed to account for Leo Meyer's *ϝιεμαι is a pure invention. It is well known that different languages use different methods of present formation for the same root. Are we to suppose that τύπτω has nothing to do with the Skt. *tupā́-mi* (No. 249)? Another objection made to my view is that it does not admit of any explanation of the length of the ι. In 'Ztschr.' xxi. 353 the Dorpat Professor asks 'where are we to find another ι in a reduplication lengthened?' The answer is, 'to begin with, often in the active ἵημι, which Leo Meyer himself holds to be reduplicated, not only by wicked Attic writers to whom this Homerist is reluctant to go, but also, as we have seen, here and there in Homer, and next in πιφαύσκων (δήμῳ πιφαύσκων Σ 500, by the side of ἠέ τι Μυρμιδόνεσσι πιφαύσκεαι Π 12), in Σίσυφος (Z 154), Τῖτάν, Τίτυρος, and also in Indian aorists like *a-pī-pata-t*, *a-ǵī-gar* (Delbrück, 'Verb.' 109 f.).' The frequent occurrence of hiatus before ἱέμενος etc. I explain to be surviving effects of the departed *j*, as in the case of the postposed ὡς. It is not surprising that this old fashion should have survived only in the middle forms meaning 'desire' which had most nearly become a special phrase and were confined to poetry, while in the case of the active forms, which occurred commonly in all periods, it gave way, even in Homer, before the ordinary pronunciation. In the active there established itself — though, as we saw, by no means universally — the causative meaning (Skt. *jā-pá-jā-mi*) 'send,' 'drive,' in the middle however the metaphysical one of 'desire.' In Sanskrit the latter appears in *jat*, which exactly means 'strive,' and is as undoubtedly an expansion of *jā*, as *ish* 'wish' is of *i* 'go.' The varying intransitive, transitive and causative uses which in verbs like ἵστημι, βαίνω, φαίνω and others distinguish the

different tenses are not restricted within the same limits in
606 the case of other verbs, such as ἄγειν, ἐλαύνειν, βάλλειν and the Lat. *volvere*. The rt. *pat* 'fly' (No. 214), though showing even in Latin (e. g. *impetus*) decided traces of an intransitive use, has here fixed itself as specially transitive. It would be well worth while to trace more minutely such processes in the history of the meanings of words. After all I believe that my view of ἵημι, though not 'proved' — how much there is in the realm of our study which does not admit of proof! — may yet be reckoned probable, — more probable than any which has sought to replace it. For the attempt, made by Fick i³. 789, to connect the whole verb with a supposed rt. *sa* leaves the Homeric phenomena from which we started altogether unexplained.

The traces of a semi-vowel *j*, which under the influence of a following vowel has introduced itself sporadically in the place of an ι, have been very carefully collected by Hartel 'Homer. Stud.' iii. 15 ff. Where diphthongs are made short before vowels (ἔμπαιος, οἶος, ἵππειον) the question how long the ι survived as a semi-vowel is not always easy to answer, and here I cannot always think Hartel right (as indeed he himself admits at p. 19) in holding that often only a 'quite slight vibration' survived of the semi-vowel. Certainly we must assume more than this in the disyllabic ἀργίας Aesch. 'Ag.' 112, in λόγιοι with the first syllable short in Pindar 'Nem.' 6, 30 and in similar cases.

The transformations of the *j* are very similar to those of the digamma. Much matter that comes under this head has been discussed by Grassmann in his important essay 'On the connexion of the consonants with a following *j*, and the phenomena which arise therefrom' ('Ztschr.' xi.). Here, as before, we start with the vowels.

II. Interchange between J and vowels.

1. Interchange between *j* and *i*.

The vowel ι comes a step nearer still to the consonant *j* than υ does to ϝ, inasmuch as not *ü* but *u* was the vowel with which ϝ changed places. Hence the remarks made

before about the relation of the semi-vowel and the corresponding vowel apply here more aptly still. In many cases it is impossible to decide which is the older of the two sounds. There are probably only two instances in which an initial *i* corresponds to a *j* in related languages, i.e. the proper name *'Ιάονες* by the side of the Skt. *Javaná-s* 'Greeks,' OPers. *Yauna*, in which case the Greek vowel naturally has 607
priority over the oriental semi-vowel, and the verb *ἴέναι* = Skt. *jā* 'go,' for separating which Brugman 'Morphol. Forsch.' i. 5 does not seem to me to have shown any good grounds. In the middle of a word however the correspondence of the one to the other is very frequent. The instances of this in the structure of the verb have been collected, together with the analogous cases in other departments, in my 'Greek Verb,' e.g. (p. 208) *ἰδ-ίω* = Skt. *svíd-jā-mi* (No. 283), Dor. fut. *πραξῖ-ω*, *βοαθησίω* (p. 468), *ε-ῖη-ν* for *ἐσ-ειη-ν* = Skt. *(a)s-jā-m*, Lat. *(e)s-ie-m* (p. 329). In the declension of nouns we meet with this phenomenon in the gen. sing. of the *o*-declension: *o-ιο* = Skt. *a-sja* (Bopp 'Vgl. Gr.' i². 384); numerous suffixes used in the formation of words show it, as does the comparative suffix *-ιον*, Lat. *-ior* = Skt. *ījan-s* for *jans* or *ians*, e.g. *ἡδ-ίων* = Skt. *svád-ījān*, Lat. *suā(d)v-ior*, and the common suffixes *-ιο-ς*, *-ια*, *-ιο-ν*, on the relation of which to the Skt. *ja-s*, *jā*, *ja-m* the reader is referred to Bopp's 'Vgl. Gr.' iii². 333 ff. It should be noticed that in almost every case the Latin vowel agrees with the Greek, more especially in the formation of substantives and adjectives, for which the suffixes *ιο-ς* = *iu-s*, *ια* = *ia*, *ιο-ν* = *iu-m* are employed in a remarkably similar manner by the two languages, while the Teutonic and Slavonic languages constantly resemble the Sanskrit in choosing the consonant *j*. We may conjecture from this that the vowel was of great antiquity. Benfey has likewise decided for the priority of the vowel for *ia* and elsewhere in his dissertation 'Ist in der indogerm. Grundsprache ein nominales Suffix *ia* oder statt dessen *ya* anzusetzen?' (Gött. 1871), and Havet ('Mém.' ii. 177) agrees with him most decidedly. We have already had occasion (p. 562 f.) to speak of the survival of the *i* in the dialect of the Vedas where a *j* is found later. The course of language was certainly in this

case in many instances from the vowel to the semi-vowel. That, however, the further step to the spirant was everywhere a natural one, is shown most clearly by the Greek sound-groups which presuppose the spirant *j*—λλ, σσ, and ζ—which occur at the same place where the ι shows itself. It is enough to compare ἡδ-ίων with ἥσσων from ἡκ-jων. Again, running parallel to the *j*, the ι unites itself with preceding vowels to form diphthongs, not only when it stands as the immediate neighbour of the vowel: πλε-ίων, μα-ί-ο-μαι, δα-ί-ω (No. 256), but also when it has to make its way to it from the following syllable: φθείρ-ω from φθερ-jω, of which case we shall have to treat again. Cp. 'Gk. Verb' pp. 209 and 213. The analogy to the transformations of the ϝ here shows itself clearly at every point.

2. *j* interchanged with ε.

j bears to ε the same relation that υ bears to ο. On the analogy then of the cases discussed above on p. 570 f. it will
608 not surprise us to find *j* represented by ε. The Teutonic languages afford us precisely analogous phenomena (Grimm 'Gr.' i. 188, 220, etc.) especially in the gen. pl. of *i*-stems; OHG. *ensteô* by the side of *enstjô*. It is likewise to be remarked that the modern Greeks occasionally express the *j* of other languages by ε instead of ι, thus, as Schleicher 'Zur vergl. Sprach.' 37 points out, Galanos in his 'Ἰνδικαὶ μεταφράσεις: Βεάσα = Skt. *Vjāsa*. We have a predecessor of this Βεάσα in 'Εάσων on a vase (Keil 'Anal.' 173). Conversely, as Maurophrydes 'Ztschr.' vii. 137 ff. points out in an essay on the *j* in modern Greek, which touches on many phenomena that belong to the present subject, an old Greek ε is not unfrequently replaced by *j*, e. g. in νjός = νέος. The pronunciation of the ε before vowels must even in old Greek have been far more liquid than when it stood before consonants. This is evident from the large number of synizeses between ε and following vowels, e. g. in the monosyllabic θεοί, νέα, ἑᾷ. No mistake could be greater than to weigh this ε in the same balance as that before consonants, and to conclude from the fact that the latter never arises from an older ι in Greek, that it is impossible that the former should ever have arisen either

from *i* or *j* or from an irrational sound vacillating between the two. (Cp. Schleicher 'Comp.[3]' 70). Quite the same view is taken by Gust. Meyer 'Ztschr.' xxii. 497. Zacher 'De nom. in *αιος*' p. 127 is probably right in conjecturing that the Doric and Boeotian substitution of *-ιο* for *-εο* (*θιός*) was also due to an *ε* of the nature of a *j* which here inclined rather to *ι*.

We must begin with such forms as coexist with others in Greek itself which show an *ι*, or with such phenomena as allow us to infer a *j* with certainty. First of all come the Doric futures. The *ι* of the Doric futures in *-σιω*, which correspond to the Skt. futures in *-syāmi*, remains in strict Doric only before an *o*-sound: *πραξίω*, *πραξίομες*, *χαριξιόμεθα*, before an *e*-sound, probably owing to the influence of the neighbouring vowel, it is replaced by *ε*, which is contracted with the following vowel: *ἐργαξῆται* (Ahr. 'Dor.' § 25, 26). In laxer Doric the latter representative occurs throughout: *πραξῶ*, *πραξοῦμες*, *ἐργαξεῖται*. — A second undoubted instance of this substitution is the Ionic *τέο*, *τέῳ*, *τέων*, *τέοισι*, by the side of which, for the datives at least, we have proof of Lesbian forms with *ι* *τίῳ*, *τίοισι* (Ahrens 127). No one will think of doubting that the latter forms are the older, and arose, by the suffixing of an *a*-sound, from the st. *τι* (cp. above p. 489). We have additional, though superfluous evidence of this in the Megaric *σὰ μάν* = *τί μήν*, strictly *τj-α μήν*, i. e. *τίνα μήν* (Ahr. 'Dor.' 277), where the consonantal *j* produced the preceding *σ* and then vanished, as well as in 609
the compound forms *ἄ-σσα*, i. e. *ἀ-τja* and *ἄ-σσα*, i. e. *ἀ-τja*. — We met with a third case of the kind at No. 597, the Argive *ὥβεα* = *ᾠά*, i. e. *ὠϝja* (Lesb. *ὤϊα*). In all these instances then we have an *ι* by the side of an *ε*, and can be certain that the *ι* is the older of the two. — It is most probable that the same is the case, fourthly, with *Δεύνυσος* (Anacr. 'Fr.' 2, 11, 11, 2 B.) = *Διόνυσος*, in which word, uncertain though its derivation is, the *ε* will hardly be held (cp. also the Aeol. *Ζόννυσος*) to be older than the *ι*. We should incline too to regard the *ε* of *ἡνορ-έη* 'manliness,' compared with *ἀν-ηνορ-ίη* (cp. *ὑπερ-ηνορ-έη*) as the direct equivalent of an *ι*, if it were not that the well-established form *ἀνδρεία* renders it doubt-

ful. — For a further set of forms there are to be found elsewhere dialectic by-forms, which clearly point to *j*, so in particular with Βορέης which at *I* 5, *Ψ* 195 makes a spondee, and had consequently an ε pronounced like a consonant and of the nature of a *j*, which was able to make the ο long by position. The form Βορρᾶς in which the accent is irregular arose by assimilation, like the Aeol. φθέρρω from φθερ-jω. A conjecture on its origin has been given at No. 504. There is however this difference between these two cases, that the *j* of φθέρρω is original while in the conjectural Βορjας it arose on Greek soil from ε. For Zacher 'De nom. in αιος' p. 127 is no doubt right in explaining Βορέᾱς to be from *Βορεσ-α-ς (ϝόρος 'mountain') and Βόρε-ιο-ς from Βορεσ-ιο-ς. — The case is the same with στερεό-ς for which the Attics preferred the form στερρό-ς, i. e. στερ-jο-ς, while the fem. στεῖρα (No. 222) has transposed the ι to the stem-syllable (cp. φθείρω), and with κεν-εό-ς by the side of the Aeol. κέννο-ς and the Epic κεινό-ς, which was later shortened into κενό-ς and is exactly parallel to the Aeol. στέννο-ς, Epic στεινό-ς, Attic στενό-ς, while it should be compared with the Skt. çūn-já-s (No. 49) as well. On the Thessalian inscription edited by Heuzey ('Annuaire de l'Association pour l'encouragement des études Grecques' Paris 1869), l. 3 we read πατρουέαν = πατρωΐαν. The Chian inscription in Cauer's 'Delectus' No. 133 has the forms οἰκέας and οἰκίας side by side. As Old Attic we find Λυσέας by the side of Λυσίας ('C. I. A.' i. 468).

In other cases it is more probable that the ε is a shortening of the diphthong ει. Among these comes δωρεά with the Hesychian by-form δωριά. This word δωρεά may undoubtedly be placed, if only in virtue of its accent, among the collectives in -jā̆, treated by Bopp 'Vergl. Gr.' iii². 339, e. g. Skt. *gav-jā̆* 'a herd of cows,' cp. ἀνθρακ-ιά, μυρμηκ-ιά, νεοττ-ιά. Accordingly
610 δωρ-εά properly means 'a number of gifts,' and the original form was δωρε-ιά in which the ε is of the same kind as that of ἵππε-ιο-ς, ταύρε-ιο-ς. This form was first pointed out by Hugo Weber ('Ztschr. f. Gymnasialwesen' 1863 p. 123) in an inscription. Since then so many instances of δωρειά have been discovered that doubt is now felt on the other hand, as to whether δωρεά is good Attic. Cp. A. Schaefer 'Rhein.

Mus.' xxiii. 422, where a remark of Bücheler's is quoted to the effect that in the tragedians the metre never requires the shorter form. Cp. Zacher 'Nomina in *αιος*' p. 52. To the same class of words belongs *γεν-εά*, the original meaning of which we must take to be 'generation,' i.e. the sum of people of the same age. Since these collectives presuppose an already existing noun-stem from which they are derived, we must refer *γεν-εά* to **γενεσ-ja*, which first no doubt became **γενεια*, then *γενεά*, as **τελεσ-jo-ς* became *τέλειο-ς* and *τέλεο-ς*, and as the verbs in *-εω* came from *-εj-ω* (Hom. *νεικείω*). Here accordingly *ε* is etymologically not a representative of the *j* but of a combination of sounds containing a *j* or *ι*. The same is true of the adjectives of material in *-εο-ς*, Epic *-ειο-ς* Dor. *-ιο-ς*, Skt. *ēja-s*[1]. The names of trees too ending in *-εα* (*κρανέα*, *συκέα*) with by-forms in *-ια*, e.g. *κράνεια*, treated of by Ahrens 'Dor.' 121 and Lobeck 'El.' i. 251, seem to me most naturally classed with the adjectives in *-εο-ς*, so that here the tree is named from its fruit, the fig-tree being called 'the figgy (tree).' The vacillation between *ει* and *ε* lasted in many words to the latest period of Attic and even longer. Demosthenes' *ἐπηρεάζειν* by the side of *ἐπήρεια* is a striking instance of it. — The most thorough substitution of *ε* for *ει* is to be seen in the particle *ἐάν*, which even in Homer was contracted to *ἤν*, while later *ἄν*, *ἄν* was formed from the uncontracted *ἐάν*. The Epirot inscriptions of Karapanos now show us *εἰάν* (Vème Série No. 18), but no one will take that for the primary form. Here as often in Epirot *ει* and *ε* are interchanged (*ἔμειν*, *Διοπέθης*).

In the forms just discussed we had the guidance of Greek dialects, but there are others of which the explanation must be sought in the related languages alone. Among these is *ἑτεό-ς* compared at No. 208 with the Skt. *satjá-s*. The derived *ἑτάζειν* preserves the shorter stem *ἑτο*, which is parallel to *κενο* and *στενο*. The unstable nature of this *ε* is clearly to be seen in the Homeric *φρένας ἠλέ* (*O* 128) by the side of *φρένας ἠλεέ* (*β* 243). Cp. A. Fritsch 'De hyphaeresi' ('Stud.' vi. 108). — We may perhaps conclude from the ONorse form *vidja* 'hoop,' that the *ε* of the corresponding *ϝιτέα* (No. 593) 611

[1] On the by-form *-ηιο-ς*, cp. 'Stud.' ii. p. 187.

arose from *j*.—At No. 423 b we derived the *ει* of *εἰνάτερ-ες* = *janitr-ic-es* from *εε*, and identified the first *ε* with an older *j*. — The Homeric *εὖτε* 'when' may probably be explained in the same way; it is synonymous with *ὅτε*, but distinctly separated by its meaning from *ἠΰ-τε* 'as,' with which it is always being mixed up; it seems, that is, to have arisen from *jo-te* *ἐο-τε* and to have undergone the same Ionic contraction as is shown in *ἐμεῦ* = *ἐμέο*.

For the question whether we can to some extent recognize in the *ε* of the presents in *εω* (e.g. *δοκέω*, *γαμέω*, *κυρέω*) a transformed *j* I may now refer to my 'Greek Verb' pp. 200 ff.

The common noun-suffix *-ευ* (nom. *-ευ-ς*) which presents greater difficulties than most other such suffixes to a satisfactory identification with those of other languages, has been the subject of very different explanations. Adopting a view expressed by Schleicher ('Sitzungsbericht der k. Akad. in Wien' Febr. 1852) though retracted afterwards ('Compend.' § 212), I first at 'Zeitschr.' iii. 76 ff., and then in this work identified the suffix *-ευ* with the Slavonic *-ov*, and the verbs in *-ευω* with those in *-ova-ti*. Since all Slavonic scholars now regard this *-ov* as an intensified *u* transferred from *u*-stems to others as well, I do not venture to hold to my earlier opinion. For it is impossible to suppose that the *-ευ* in Greek had a similar origin. Other combinations have been made by Pott W. i. 1237, Leo Meyer[1] in 'Bezzenb. Beitr.' i. 20 ff., Wackernagel 'Ztschr.' xxiv. 295 ff. It is enough for our present purpose that in this case

[1] Pott and Leo Meyer in attacking my former view have expressed a most unjustifiable contempt of my introduction of the old grammarians' doctrine of *παρασχηματισμός* as distinguished from *παραγωγή*. There is a distinct difference between a derivative syllable which establishes a new category for a noun—e. g. *-τι* in *φά-τι-ς*, *-μα(τ)* in *ῥῆ-μα*, *-τητ* in *βαρύ-τη-ς*, *-εο* in *χρύσ-εο-ς*,—and one which at most adds to the previous step a fresh 'nuance' of meaning, but often does not alter that meaning at all—e. g. *-ια* in *νεαν-ία-ς* by the side of *νεάν*, *-α* in *Ἀϝιδ-α* by the side of *Ἀ-ϝιδ*. The ancients saw such a relation between *πομπός* and *πομπεύς*, *ἡνίοχος* and *ἡνιοχῆα*, *πατροφόνος* and *πατροφονῆα*. The expression 'individualising suffix,' which I proposed, finds no acceptance with these two scholars, but others, e.g. Osthoff 'Forsch.' ii.

it has been shown to be quite improbable that the ε arose from a *j*. Wackernagel tries to defend the old comparison of -ευ with the Skt. *ju*, holding that a *j* has fallen out between ε and υ.

3. *j* as *v*.

The attempt to find υ as a representative of a *j* has not been very successful. My former comparison of κύανο-ς with the Skt. *çjā-má-s* I have abandoned on p. 546. There remains therefore but a single instance. Plato 'Crat.' p. 418 [d], in the course of his derivation of the Gk. ζυγό-ν from δύο, assumes an older form δυο-γό-ν, which perhaps was not merely made up at random, but rather a somewhat arbitrary way of writing *djugón*, i. e. the same form which we have to assume as a connecting link between the Graeco-Italic *jugo-m* (Skt. *jugá-m*) and the Gk. ζυγό-ν (No. 144). 612

III. Change of *j* into other consonants.

A. *j* as γ.

In the mouth of a modern Greek γ has in many cases (cp. Deffner 'Stud.' iv. 241) the pronunciation of a spirant. Here belongs especially μυΐγα = μυία, where γ has developed itself out of the ι of the diphthong, as in many other cases where Mullach (140) and before him Giese (295) have explained the γ with less probability as proceeding from ϝ: καύγω (pron. *kāvjo*), κλαίγω (pron. *klājo*), αὐγό-ν (pron. *avjó*) 'egg,' which comes, as we saw at No. 597, from *āvja-m*. This mod. Greek γ pronounced as a spirant is, strictly speaking, a surviving not a transmuted *j*. Since in the Teutonic family *g* is sometimes developed from *j* (Grimm 'Gr.' i. 187, 220), the *g* of the OHG. plural *eig-ir* and the English *egg* no doubt also corresponds to this spirant [1]. [Cp. March 'Anglo-Saxon Grammar' § 28.] — The people of Salamis in Cyprus called sulphur

have adopted it and used it to some purpose. — Passow 'Philol.' xx. 587 treats at great length of ευ in proper names.

[1] Joh. Schmidt, who at 'Ztschr.' xxiii. 291 ff. discusses at length the change of *j* to *g*, denies this change for German at the beginning of his paper, maintaining that the fact that *g* succeeds to the

θέαγον according to Hesych. With M. Schmidt ('Ztschr.' ix. 368) we must here compare the γ with the ι of the Ionic form θεήιον, i. e. regard γ as a means of writing *j*. — The case of the glossematic word ἄγουρο-ς is peculiar. In Byzantine authors this word occurs in two senses; it is used for 'young people' and also as an adjective in the sense of 'unripe,' e. g. ἔλαιον ἄγουρον 'oil from unripe olives' (ὀμφάκινον). Cp. Stephanus 'Thes.' In the second meaning the word is in general identified with ἄωρος, which means the same thing, and as we concluded at No. 522 that ὥρα had originally an initial *j*, we may unhesitatingly regard the γ of the word ἄγουρος 'unripe' as the successor to a *j*. The only doubt remaining is whether γ is merely the sign for
613 a still surviving *j* or a representative of an earlier *j*. For ου in place of an Old-Gk. ω I may refer to Deffner 'Neograeca,' 'Stud.' iv. 302 ff. (e. g. *psumí*=ψωμίον. At p. 308 of the same paper *ἀγυríδα* is mentioned as still current in the sense of ὄμφαξ. Then comes the question is ἄγουρος· ἔφηβος the same word, and did it likewise come from ἄωρος 'unripe' with a reference to the 'fresh green' of youth? The history of this ἄγουρος is a somewhat complicated one. It occurs in Eustathius ad 'Odyss.' p. 1788, 56 in a collection of ὀνόματα

position of a *j* presupposes a pronunciation of *g* as a spirant, that accordingly the OHG. *gehan* was really pronounced *jehan*. I am not in a position to test the correctness of this assertion. Granted however that it is correct, still in the English *egg* this change, however it be explained, is an established fact, as Joh. Schmidt p. 295 himself admits for this word and also for the Italian *rimango, salgo*. In the German *Gischt* too we pronounce a *g* which has arisen from a *j*. It appears to me that we cannot be too careful in such questions to distinguish between the facts and their explanation. I have only maintained that as a fact γ takes the place of a *j* in Greek too in certain cases; whether it does so directly or by means of certain intermediate steps, and by what steps, are different questions. Consequently, when Joh. Schmidt p. 292 maintains that 'the assumption of a *direct* change of *j* to *g* is a mistake,' this remark does not concern me at all, but it is foreign to my purpose to enter upon the distinctions of physiological phonetics which he holds necessary for establishing the connexion of the two sounds, while I am much inclined to adopt a great deal of what he says.

ἡλικίας, the main body of which at all events (cp. Nauck 'Aristoph. fragm.' p. 88 sqq.) comes from Aristophanes of Byzantium: Ἀχαιοὶ δὲ (i. e. τοὺς ἐφήβους καλοῦσι) κούρους· Θρᾷκες δὲ ἀγούρους. This would lead us to reckon the word a Thracian one, were it not that the added ὡσαύτως καὶ Ἀττικοί recommends caution and that the passage in the 'Etymologicum Gudianum' p. 124, which elsewhere corresponds word for word with the above, has in place of Θρᾷκες the senseless καδες which Nauck rightly interprets Ἀρκάδες. Thus we see that our authorities furnish no warrant for the assumption that we have here to do with a Thracian word and Fick's ingenuity in identifying the word ('Spr. d. Indog. Eur.' p. 421) — with Joh. Schmidt's hearty approbation — with the Zend *aghru* = Skt. *ágru* 'unmarried,' is this time thrown away. It is probable on the other hand that this ἄγουρος was also a genuine Greek word and identical with the other. If Nauck is right ('Mélanges Gréco-Romains' ii. 329, cp. I. Bekker on the Odyssey η 64), ἄγουρος actually occurred in the Odyssey of Aristophanes Byzantius: τὸν μὲν ἄγουρον ἐόντα βάλ' ἀργυρότοξος Ἀπόλλων | νυμφίον ἐν μεγάρῳ μίαν οἴην παῖδα λιπόντα instead of the ἄκουρον of the MSS. and, it appears, of Aris- 614
tarchus. If so ἄγουρος must have counted as an antiquated word in the Alexandrian period.

σωγάσαι· σῶσαι Hesych. by the side of σωάδδει· παρατηρεῖ clearly shows that there was once a spirant between ω and α. This spirant I formerly assumed to have been a *j*, in which case the stem-word would have been a *σώιο-ς formed from σῶος, and from this would have come *σωιάζω like μετριάζω from μέτριο-ς. Nevertheless I grant to Joh. Schmidt ('Ztschr.' xxiii. 296) that it is also possible that *σωγάζω arose from *σωϝο-ς as δοκιμάζω did from δόκιμο-ς and that the common representation of ϝ by γ makes this the more probable of the two (cp. Fick ii³. 255). — On the other hand I cannot agree with the same scholar in denying that in ποτικλαίγω the γ, as Meister 'Stud.' iv. 428 was the first to recognize, arose from a *j*. This κλαίγω (cp. ποτίκλαιγον) is clearly a dialectic variety of the old Attic κλῄω, later κλείω ('shut') and γ arose from *j* perhaps in the way indicated by Joh. Schmidt, through an intermediate *gj*. There is no analogy in Greek

word-formation for the assumption that κλαίγω is a denominative verb formed from the Dor. κλᾷξ, acc. κλᾷκ-α, found on the inscription from Andania. Apart from the weakening of the κ to γ, which seems to me no trifle, the Greek language can, if we except a very few verbs (e. g. the Homeric θέρμετο), show no evident denominatives without some derivative syllable in the present-stem. The assumed *κλᾳκ-ω would be as unheard of as, say a *φυλακ-ω or *φορμιγγ-ω instead of φυλάσσω φορμίζω. Cp. 'Greek Verb' p. 229.

Are we able then to find analogies to these processes partly confined to late Greek, partly to particular dialects only, from the ordinary Greek of early times? This question must be answered in the negative [1]. In proof of the fact that γ was pronounced soft in certain combinations of sound and in particular after ι, attention has been called to its instability, e.g. in the Boeotian ἰών, ἰώ (Ahrens 'Aeol.' 206) — hardly ἰών — for ἐγών, ἐγώ, in the Tarentine ὀλίος = ὀλίγο-ς (Ahrens 'Dor.' 87), which however is ridiculed in Hyperbolus by the comic writer Plato (Herodian ii. 926 ed. Lentz), and consequently was a pronunciation known in Attica, in σίαλο-ν
615 'spittle' (*salīva*), σίαλο-ς 'fat' by the side of σιγαλό-εις 'shining' (Lobeck 'Prolegg.' 341, cp. Fick i³. 843), and in Φιαλία by the side of Φιγαλία. In none of these words however can it be proved that the γ came *from* the *j*, while in some the relation of the two letters is the converse. As regards the numerous future, aorist and derivative formations not only Epic but also specially Doric, which show a ξ where the present has a ζ it will be enough here to refer to my 'Greek Verb' p. 452 ff.

[1] The assumption that the Gk. rt. γεμ preserved in the Homeric γέντο 'grasped' and in Hesychius' glosses ἀπόγεμε· ἄφελκε, ὕγγεμος· συλλαβή Σαλαμίνιοι (by the side of the enigmatical γίνου· Κύπριοι καὶ λαβέ καὶ κάθιζε) is identical with the Skt. *jam* 'hold,' 'bind,' I retract, now that Fick ii³. 344 has without assuming any irregular sound-change connected the rt. γεμ with the ChSl. *ẑīm-ą*, inf. *žę-ti* 'comprimere.' The Lat. *em-ere* is to be referred to a rt. *am* 'take' (cp. No. 449 b).

B. Relation of *j* to ζ and δ.

The representation of an original *j* by ζ is a fact universally recognized, but it can only be understood and explained in connexion with a large number of other facts. We have here to do with wide-spread phenomena, of which only a portion have been hitherto recognized, while others have been here and there guessed at, and many have not yet been even mentioned: so that it seems best to throw the discussion which follows into the form of a connected investigation.

1. ζ as the representative of *dj*.

It is universally acknowledged that ζ frequently represents a *dj* occurring before the Greek language was formed. The process of change was undoubtedly that stated by Schleicher ('Zur Vergl. Sprachengeschichte' p. 40 ff.). Under the influence of the soft dental consonant the palatal spirant, which followed it, passed over to the dental organ, changing into the sound which in French, Bohemian, and Polish is denoted by *z*, while we Germans distinguish it in pronunciation as a soft *s*, although we represent it by the same character as the hard or sharp *s* [German *z* being pronounced as *ts*]. ζ, which is shown by its influence in prosody to be a double consonant, is the expression in writing of *dz*[1]. The following are certain instances of the representation of an older *dj* by ζ:

[1] This view of the sound of the ζ, widely held, I believe, among German philologists, is disputed by Ascoli 'Krit. Stud.' p. 364. A. denies that there is any explosive element in ζ, the pronunciation of which he represents by *źź*, i. e. (cp. 'Vorles. üb. Lautlehre' p. 22) as I should write it *zz*, that is to say a doubled or thickly pronounced soft or sonant *s*, as it is pronounced e. g. in the Low German *drusseln*. Certainly this was the sound of the ζ in the later classical period, that which the Romans tried to reproduce by *ss* (*atticisso*). It survives thinned down to a single *z* among the modern Greeks. But several reasons may be adduced in support of the view that at an earlier date the *d*-sound, to which etymology so often points, was not yet extinct in the ζ, above all the Lesbian metathesis to σδ and the origin of ζ from δι on Greek soil. A. quotes in support of the simple nature of the ζ, which he maintains, the fact that ζ does not make

616 a. Initial.

The name *Ζεύ-ς* has been mentioned already under the rt. διϝ (No. 269). L. Havet in the 'Mémoires' ii. 177 has made it very probable that for this stem we must start from the disyllabic primitive form *diu*. This primitive form appears (1) with a transition from *i* into *j* before consonantal suffixes in Sanskrit, e.g. in the instrum. pl. *djú-bhis* ('with the days'). By addition of sound there arises the form *djau* Gk. *Ζευ*, whence the voc. *Ζεῦ*, nom. *Ζεύ-ς*, and further, as the *u* before vocalic suffixes became a consonant Skt. *djav* (e.g. loc. *djáv-i*), Osc. *Διουϝ* in the dat. *Διουϝει* (Mommsen 'Unterit. Dial.' 191), and with the addition of a stem-forming *i*, the OLat. nom. *Diov-i-s*, and finally with the loss of the initial *d Jovi-s* as a nom. sing., and by a kind of contraction *Jū*, in the Umbrian *Ju-pater* Lat. *Juppiter* (Corssen 'Aussprache' i. 365). — (2) The second change of **diu* consists in the *u* before vowels becoming a half-vowel, hence producing *div*. We are obliged to assume a verbal rt. *div*, if only on account of the Skt. *dē-vá-s* (cp. above p. 519), which cannot possibly be derived from the shorter stem *di* by means of the suffix *-va*. For the stems with this suffix never, according to Lindner ('Altind. Nominalbildung' p. 105), raise the vowel of the stem. The stem *div* occurs in the Skt. acc. *dív-am* = *Δίϝ-α*, gen. *div-ás* = *Διϝ-ός*, loc. *div-í* = *Διϝ-ί*, and also in the derived *δῖο-ς* = Skt. *divjá-s*, Lat. *dīvo-s* and in the OHG. *Zio*. For *deu-s* see above p. 513, and cp. Grassmann 'Ztschr.' xi. 3.

The most numerous difficulties are presented by the forms which have not retained anything either of *u* or of *v*, like the Ved. acc. sing. *djā-m* = Gk. *Ζῆ-ν* (e.g. Ξ 265) at the

position in Homer in *Ζέλεια* and *Ζάκυνθος*: but his translator has pointed out correctly, that it is only so that these proper names can fit into the verse. Hence that a line ends *ἄστυ Ζελείης* Δ 103 no more proves anything for the simple pronunciation of the *ζ*, than *ποταμοῖο Σκαμάνδρον* Λ 499 does for that of *σκ*. Besides, a syllable before *ζ* in the middle of a word is invariably long. Modern Greek dialects in some words retain the pronunciation *dz* which we assume for the old *ζ*, e.g. *dzarkádion* (= *ζορκάδιον*), *dzákonos* (= *διάκονος*), *dzávulos* (= *διάβολος*) and also in Locr. *ándzelos* = *ἄγγελος* (Chalkiopulos 'Stud.' v. 358 f.).

end of a verse (Leo Meyer 'Ztschr.' v. 373). Even Gottfr. Hermann 'El. doctr. metr.' 351 saw that there was no place here for apostrophe, and I. Bekker and Lachmann (in 'Lucret.' p. 81) agree with him. So *Δίαν· τὸν οὐρανὸν Πέρσαι* (cp. Herod. i. 131). If we do not choose to refer these forms to the shorter rt. *di*, the *υ* must have disappeared entirely, much as in the Skt. acc. *gā-m* 'cow' = Dor. *βῶ-ν* (st. *gav*). The nom. to this *Ζῆ-ν*, i. e. *Ζή-ς* (like Dor. *ἱερής* = *ἱερεύ-ς*) is quoted by Herodian (ii. 911, 8) from Pherecydes, and also 617
Ζά-ς, from which came also the metaplastic form *Ζαντ-ός* (like *στά-ς*, *στάντ-ος*). [Bekker 'Anecd.' 1181, 1184]. — The forms current from Homer *Ζη-ν-ός*, *Ζη-ν-ί*, *Ζῆ-ν-α* are based upon an expansion with *ν* like the plur. *ἶ-ν-ες* beside *ἴ-ς* (No. 592). — Finally we have still to mention forms, in which there appears no appended vowel after *ι*, like the nom. *Δί-ς*, for which Herodian is also our authority, and the stem *Δει* (doubtless only a corruption for *Δῑ* in *Δει-πάτυρο-ς· θεὸς παρὰ Στυμφαίοις*, Hesych.). I have shown, I believe, in my 'Quaestiones etymologicae' (Kiel 1856) that we have in this Epirote name of a divinity an old compound, to be compared with Umbr. *Ju-pater*, with a paragogic ending, as in *Αντίπατρος*, *Σώπατρος* and a *υ* (cp. *δια-πρύ-σιο-ς*) dulled from *ε* (cp. *εὐπατέρεια*).

The forms in which *ζ* is represented by *δ* are discussed on p. 620.

We go on to the instances in which, within the limits of the Greek dialects, we detect a transition from *δι* before a vowel to *ζ*. Evidently these changes have been effected considerably later.

In the Aeolic dialect of Lesbos the transition from *δι* to *ζ* is a fact often mentioned by the old grammarians. Ahrens p. 46 quotes from the fragments of the Aeolic poets, and from citations of the grammarians the following instances: *ζά* = *διά* in *ζὰ νυκτός*, *ζάβατος*, *ζάδηλος*, *ζαελεξάμαν*, *ζαβάλλειν*, *Ζόννυσος*[1] = *Διόνυσος*. There is further from the nearly related Cyprian *ζάει· πνεῖ Κύπριοι*, no doubt explained correctly by M. Schmidt as for *δι-άει*, *ζακόρεια· θυσία Ἀφροδίτης* according

[1] The form **Ζόννυξος* ('C. I.' 2167) has no support, since Conze in his 'Reise auf Lesbos' Plate ix. 1, 5 showed that the reading was *τῶ θεῶ* (Ζ)*οννύσω*, according to which in line 3 of the same inscription the

to Meineke and M. Schmidt = *διακόρεια*, i. e. 'prostratae virginis sacrificium' ('Ztschr.' ix. 367). These forms are only to be explained by the assumption of the intermediate stage *δja*, and it is worth while noticing that this intermediate stage survives in the mouth of the modern Greeks (Maurophrydes 'Ztschr.' vii. 138). *zeta* = *δίαιτα*, *zabolus* = *διάβολος*, belong to the Christian time. In these words *ζ* is certainly only the sign of a sibilant. We are tempted accordingly to explain the name of the *ὑλήεσσα Ζάκυνθο-ς* from *δι-άκανθο-ς*, full throughout of *ἄκανθαι* or *ἄκανθοι* ('brankursine')—cp. *δίαμμος*,
618 *διανθής*, *διάπυρος*, *Διακρία* and the Locrian *Ζά-λευκο-ς*—with an Aeol. *υ* = *α* ('Ahr.' 78 and 82). For *Saguntum*, which the legend connects with *Ζάκυνθος*, we find the forms *Ζάκανθα*, *Ζάκανθος*. Whether this explanation suits the vegetation of the island, others can decide. [But cp. Tozer 'Geography of Greece' p. 354.] *ζύγρα· ἕλος* in Eustath. p. 295, 3 is doubtless for *δι-ύγρα*. Outside of the Aeolic dialect also *διὰ* often occurs in the form *ζα*, as in *ζά-χολο-ς* (Anthol.), *ζα-μενής* (Hymn. in Merc., Pind.), *ζά-πεδο-ν* (Xenophanes), *ζα-πληθής* (Aesch.), *ζά-πλουτο-ς* (Herod.), *ζά-πυρο-ς* (Aesch.), *ζά-χρυσο-ς* (Eurip.), [Paley writes on Aesch. 'Supp.' 71 (68) '*διὰ* is constantly a monosyllable in choral verses; see on 'Cho.' 774 (787); and perhaps generally when used in composition in iambics'], and undoubtedly also in the Homer. *ζά-θεο-ς*, *ζά-κοτο-ς*, *ζα-τρεφ-ής*, *ζα-χρη-ής*. Finally the first element of *διανεκῶς* is in sound, if not in form, equivalent to this *ζά* in a verse of Corinna (Bergk 9), when the word forms an anapaest, if indeed we are not actually to read *ζᾱνεκέως* (*ζανεκέως εὕδεις*; for *ἢ διανεκῶς* of the MSS.). The transition from the meaning 'through and through' to the more general intensive meaning is very easy. Cp. Germ. *Durchlaucht* 'Highness' [properly an abbreviated past part. of *durchleuchten* = 'illus-

obscure character standing before Ω is evidently not to be read as Ξ, but also as Σ. Cp. Conze p. 13, and v. Wilamowitz-Möllendorf 'Ztschr. f. Gymnasialwesen' 1877 p. 647. The sole support for the *ξ* might be derived from the Schol. B on Ξ 325 (Ahrens 'Aeol.' 46). But there the form *Διόνυξος* (*οἱ δὲ Διόνυξος*) is only brought forward as the occasion of a stupid etymology (*κερασφόρος γὰρ τεχθεὶς ἔνυξε τὸν μηρὸν τοῦ Διός*) and hence can hardly rest upon any real tradition.

trissimus;' cp. also Eng. *thorough*]. *διά* is indeed itself derived from *δϝια*, as has been shown under No. 277; and this proves the fact—which is remarkable phonetically—that the sound *j* was still present in Greek after the loss of the *ϝ* from this sound-group. On the other hand Hartung's connexion of this *ζά* with *ἄγαν*, and even with Skt. *saha* ('Partikeln' i. 355) is to be absolutely rejected. — *διακόσιοι*, is scanned as four syllables (*πεντάκι διακόσιοι*) in Anthol. xi. 146, on which Lobeck 'El.' ii. 106 justly remarks: 'fortasse *ζακόσιοι* audiri voluit.' Only we must remember here that Hartel 'Homer. Stud.' iii. 15 deals with the word from the points of view mentioned on p. 606. *ζ* is pronounced as a single letter.

b. In the middle of a word.

Here we must quote in the first place those present stems in *ζ*, which are derived from verbal stems in *δ*. For it has been proved long ago that this *δ* became *ζ* by its union with the formative syllable of the present stem. Verbs of this kind with roots in *δ* are: *ἕζ-ο-μαι* rt. ἑδ (No. 280), *ὀζ-ω* rt. ὀδ (No. 288), *σχίζ-ω* rt. cχιδ (No. 295), *χέζ-ω* rt. χεδ (No. 186). Cp. 'Greek Verb' pp. 201 ff. and especially p. 222 ff.

The noun-ending *-ια* unites with a preceding *δ* to form *-ζα* in the Aeol. *κάρζα* = *καρδία* (Ahr. 46) [cp. Aesch. 'Supp.' 71, 'Theb.' 288 Dind.], in *ἀργυρό-πεζα*, *κυανό-πεζα*, *τρά-πεζα* (for *τετρα-πεζα*), the origin of which from *-πεδ-ια* (cp. Lat. *acu-ped-iu-s* No. 2) cannot be doubted (Leo Meyer 'Bemerk.' p. 63). From the same root, also with the vowel *ε*, come the simple words *πεζό-ς* 'pedestris' = *πεδ-ιο-ς*, *πέζα* 'foot,' 'edge' = *πεδ-ια* (No. 291). — In *χάλαζα* we recognized (No. 181) the st *χαλαδ*, which was referred to Indo-Germ. *ghrād*. — *χθι-ζό-ς* 'of yesterday,' *πρωι-ζό-ς* 'of the day before yesterday,' certainly contain a stem *διϝο* (cp. Lat. *die-s*) which we discussed under No. 269 and under *δοάν*, *δήν* p. 572 and p. 588. — From the same rt. διϝ, or, what comes to the same thing for the phonetic change to be discussed here, from the shorter rt. δι of the same meaning, comes *ἀρί-ζηλο-ς*, the second part of which is equivalent to *δῆλο-ς*: *ἀρί-ζηλοι δέ οἱ αὐγαί* (*N* 244), *ἀριζήλη φωνή* (*Σ* 219). I. Bekker indeed ('Hom. Bl.' i. 291) divides the word into *ἀρις-δηλο-ς*, regarding *ἀρις*, on the score

of the proper name *Ἀρίσβη*, as a by-form of *ἀρι* (cp. *ἀμφί ἀμφίς, πολλάκι πολλάκις*). But the origination of *ζ* from *σδ*, to which we return below, is by no means a well-established process, and we need no postulated form, if we derive the word from *ἀρι-δjηλο-ς· δῆλος* is evidently directly for *δj-ηλο-ς*. The same form probably occurs in *δί-αλο-ν· φανερόν* (Hesych.), where the *α* is no doubt long, as being the Doric representative of *η* (cp. *διάλας· φανεράς*). But *ἀρί-ζηλο-ς* is the regular transmutation of *ἀρι-δjηλο-ς*. In the common form *δῆλο-ς* the *j* also has been completely lost (cp. No. 269 and Schrader 'Stud.' x. 319). — Just as in the corresponding verbs, so in the substantives *ὄζη, σχίζα* we may derive the *ζ* from *dj*. — *ῥίζα* (No. 515) was shown to be a transmutation of *ϝριδ-jα, ϝραδ-jα*.

2. *ζ* developed from *gj* through the intermediate stage *dj*.

The origination of *ζ* from *gj* is as universally recognized as its origination from a *dj* belonging to a stem. It is not probable that the *ζ* so originated was phonetically different from that just discussed. Here too *ζ* is a double consonant, the first element of which is dental. Hence to get from *gj* to *ζ* we must assume the intermediate stage *dj*[1], or in other words, the guttural medial shifted to a dental before *j*, and then pursued the same course with the following *j* as the original *δ*. We shall soon see how important it is to keep this intermediate stage in view. The phonetic changes *gj—dj—ζ* we must recognize in the following cases.

Of present stems in *ζ* the following certainly belong here: *ἄζ-ομαι* cp. *ἄγ-ιο-ς* (No. 118), *γογ-γύζ-ω* (No. 136), *κράζ-ω* which was discussed on p. 534 (*κέ-κραγ-α*), *νίζ-ω* (No. 439),
620 *ῥέζ-ω* 'dye' (No. 154), *ῥέζ-ω* 'do' (No. 141), *στάζ-ω* 'drop' (*σταγ-ών*) *στίζ-ω* (No. 226), *σφύζ-ω* 'well' (*σφυγ-μό-ς*), and also some which have lost a nasal: *κλάζ-ω* (*κλαγγή*), *πλάζ-ω* (*ἐπλάγχθη-ν* No. 367), and various verbs in which the *γ* has perhaps (cp. above p. 535) been softened from *κ*, as in *κλώζ-ω* 'cluck' = *glōc-i-o* (Walter 'Ztschr.' xii. 410),

[1] I shall return on p. 666 to the view of Ascoli, which differs on this point, and is now developed fully in his 'Kritische Studien' p. 324 ff.

στενάζω (cp. *στενάχω* No. 220), *σαλπίζω* : this is certainly the case in *πλάζω*. We see from this that the softening of *κ* to *γ*, mentioned above, is older than the transformation of the *j*.

Of the comparatives of less usual formation we may thus explain *μείζων* (Ion. *μέζων*) = *μεγ-ιων* and Hom. *ὑπ-ολίζων* = *ὀλιγ-ιων* (No. 553).

Similarly noun-formations like *μᾶζα* by the side of *μάγ-ειρο-ς* with a softened guttural (No. 455) and *φύζα* from the rt. φυϝ, cp. *fug-io* (No. 163). In both we must assume the suffix *-ια*. The adjectives *φυζα-κ-ινό-ς* (*N* 102) *φυζαλέο-ς*, *φυζηλό-ς* and Hesiod's *ἀ-φύζα-ς* (Schol. on *Φ* 528) seem explicable from the noun-stem *φυζα*. On *πεφυζότες* cp. p. 491, on the remarkable *ζεύσασθαι* = *γεύσασθαι* p. 486.

For *ζά-ω* on p. 491 we assumed an origin in *γjά-ω*.

3. *δ* and *δδ* as representatives of *δj*.

Over against the *ζ* of ordinary Greek, whatever its origin, there stands in various dialects a *δ* at the beginning, or in the middle of words frequently a *δδ*. Although I do not agree with Ascoli as to the phonetic value of *ζ*, I am inclined to follow him in holding that the *ζ* can claim on the whole the priority over *δ* or *δδ*. Cp. Beermann 'Stud.' ix. 69.

(a) initial *δ* = *dj* (*ζ*).

It is well known that by the side of the forms of *Ζεύ-ς* beginning with *Ζ* (p. 616) there are others in several dialects beginning with *Δ*[1]. The forms *Δεύ-ς* (Aristoph. 'Ach.' 911) and *Δάν* (cp. *Ζάν*) are Boeotian (Ahr. 'Aeol.' 175), the former also Laconian (Ahr. 'Dor.' 95). Herodian '*π. μον. λέξ.*' ii. 911 (Lentz) quotes the nominative *Δήν*, the accusative of which

[1] *οὐ Δᾶν*, which is well established in Theocr. iv. 17, vii. 39 also belongs here, if with Ahrens ('Philol.' xxiii. 206) we regard it as parallel to the Hom. *Ζῆν*. Ahrens assumes the same for the Attic formulae of protestation *φεῦ δᾶ*, *πόποι δᾶ*, *οἰοῖ δᾶ*, *ἄλευ' ἆ δᾶ*, and this is confirmed by other instances of the representation of an original *dj* by *δ*. The long *α* is to be compared with that of *Ἀθάνα* (Soph. 'Aj.' 14 [and always in Tragg., cp. Ellendt in voc.]). [On the common explanation (e. g. Paley in Theocr. iv. 17, Aesch. 'Prom.' 568 (580): Liddell and Scott s. v. *δᾶ*), *δᾶ*=*γῆ*, see above p. 492].

Δῆνα has been found on the Cretan inscription of Dreros (Gött. 'G. A.' 1855 'Nachr.' No. 7): this therefore corresponds
621 to the Epic *Ζῆνα*. As the counterpart to this *Δῆνα* we find on the Cretan inscription treated by Voretzsch l. 6 *Τῆνα* (cp. *Τὰν Κρηταγενής* on a coin in Mionnet ii. 257) and, ll. 60, 61, 77 of the Cretan inscription edited by Bergmann, in the place of this *TTHNA* (Helbig 'De dial. Cretica' p. 21). Voretzsch will hardly find any one to agree with him, in deriving (p. 14) this form of the name of the same God from an entirely different stem (rt. *tan, tonare*). M. Schmidt 'Ztschr.' xii. 217 justly recognizes in these different forms only different attempts to express one sound, which defied exact expression through the medium of the Greek alphabet. We may conjecture that the explosive sound denoted sometimes by *δ* (*δδ*), sometimes by *τ* (*ττ*) had a different place of articulation from that of the usual *δ*, *τ*, perhaps an interdental one, and this peculiarity of the place of articulation struck the ear more than the difference between hard and soft. M. Schmidt ('Philol.' xviii. pp. 231–33) quotes further from his Hesychius *ταμία* = *ζημία*, *τώνα* = *ζώνη*, to omit doubtful instances. — We have Boeotian instances of *δ* = *ζ* recorded in inscriptions in *δαμιώω* = *ζημιῶ*, *Δεύξιππος* = *Ζεύξιππος*, *Δώιλος* = *Ζώιλος*. As other examples of *δ* = *ζ* some quote, as Boeotian, *δυγόν*, *Δῆθος*, as Laconian, *δωμός*, and with a doubt whether they are Boeotian or Doric, *δᾶλον ζῆλον* (with the proper name *Δαλίων* in Führer 'Dial. Boeot.' 15), *δατέν ζητεῖν* (Ahrens 'Aeol.' 175, 'Dor.' 95). — For the Laconian dialect it is of importance to observe, as Beermann shows in 'Stud.' ix. 69, that in the oldest Laconian inscription acknowledged as such by Kirchhoff ('Monatsber.' 1870 p. 51) the *ζ* remains unattacked in *ζῶντι* and *ζώη*. — Perhaps the form *δάγκολο-ν· δρέπανον* quoted by Hesych., and the name of the town *Ζάγκλη Δάγκλη* preserved on coins (Ahrens 'Dor.' 96) belong to this category. Inasmuch as we have actually the gloss *ἀγκαλίς· δρέπανον Μακεδόνες* (Hesych.) and the derivation of this word from the rt. *ἀϝκ*, which unmistakeably occurs in *ἀγκ-ύλο-ς*, *ἀγκ-ύρα* (No. 1), is evident, it seems probable that from this was formed *δί-αγκλο-ν*, as it were 'Twy-bow' (*Zweibug*) 'bent apart' (cp. *δί-κελλα*), Germ. *Eim-ber* [now more commonly

Eimer 'pail,' but OHG. *eimpar* (from *përan* 'bear'), 'a vessel which can be lifted with one hand;' cp. Grimm 'Dict.' iii. 111] *Zu-ber* [Eng. *tub*, OHG. *zuipar* 'lifted with two hands']. From *δίαγκλο-ν* there would then be formed on the one hand by assibilation of the *ι* *ζάγκλο-ν*, *ζάγκλη*, the name which the Sicels according to Thuc. vi. 4 gave to the sickle, on the other hand by the loss of the *ι* the forms *δάγκολον* and *Δάγκλη*. — In Alcman's *δοάν* = *divā-m*, too, discussed above (p. 572), the *j* has been similarly suppressed after *δ*, just as in the Lat. *dū-du-m* by the side of *diu* (Fleckeisen 'Jahrb.' 1870 p. 71), *bi-duu-m* for *bi-divu-m*. But also *δήν*, as distinguished from *πρωι-ζά* according to the explanation given on p. 619, has suffered the same loss. — Similarly by the side of *ζα-*, explained to be from *διά*, on p. 602, we have the form *δα-* in *δα-φο-ινό-ς*, *δά-σκιο-ς*, probably also in *δά-πεδο-ν*. — Plato the comic poet 622
ridiculed Hyperbolus the demagogue for pronouncing *διητώμην* as *δητώμην* (Herodian ii. p. 926). We may conjecture that this pronunciation, censured as un-Attic, was not limited to this one man, but was more widely spread. We see from these last examples, scanty as they are, that the representation of *δι* or *δj* by a simple *δ* was not entirely limited to Aeolic and Doric dialects.

(b) *δδ* or *δ* for *dj* (*ζ*) in the middle of a word.

The Boeotian, Laconian, and Megarian dialects have *δδ* in the place of the ordinary Greek *ζ* in the middle of words (Ahr. 'Aeol.' 175, 'Dor.' 96): thus Boeot. *κριδδέμεν* for *κρίζειν· γελᾶν*, Lat. *rīd-ēre*, where there is no doubt that the *δ* belongs to the stem. It is therefore certain that we must here presuppose **κριδ-jε-μεν*. Where the final letter of the root is a guttural, we must, as above, assume one more step; thus in the Megar. and Boeot. *μᾶδ-δα* = *μᾶζα*, i. e. *μαδ-ja*, the earlier stage *μαγ-ja* (No. 455), Boeot. *σφάδ-δω* = *σφαδ-jω*, *σφαγ-jω*, *σαλπίδδω* = *σαλπιδ-jω*, *σαλπιγ-jω*. Here belongs also the Boeot. *ῥέδ-δω* = *ῥέζ-ω*, which is of special interest to us, inasmuch as it explains the Attic and Ionic pres. *ἔρδω*. The rt. *ϝερρ* (No. 141), whence come *ἔργ-ον*, *ἔ-οργ-α*, when the expanding *j* of the present was added, must have given *ϝεργ-jω*, *ϝερδ-jω*. According to the analogy of *σφαδ-jω*, *σφάζω* we

ought to have had from *Ϝερδ-jω* **Ϝερζω*, but after *ρδ* the spirant was entirely lost, and we only find a trace of it in the dentalizing of the *γ*: *Ϝέρδω*. By metathesis *Ϝερϝ* became *Ϝρεϝ* (cp. δερκ — δρακ, *Ϝερ* — *Ϝρε*), and this form too made its present by the addition of the *j*: *Ϝρεγ-jω*, *Ϝρεδ-jω* Boeot. *ῥέδ-δω*, Ion. *ῥέζω*, for here the *ζ* could easily be pronounced after the vowel. To formations of the latter kind belong also *ῥεχ-θέ-ν*, *ῥεκ-τό-ς* (cp. *ἐρρή-θη-ν*, *ῥη-τό-ς*). Even Buttmann ('A. Gr.' ii. 286) justly called attention to the entirely corresponding metathesis in the Eng. *wrought* by the side of *work*. But neither he, nor the earlier comparative grammarians (cp. Benfey i. 84, Christ 245) succeeded in explaining the *δ*, which is limited to the present stem. Some indeed thought of entirely separating the rts. ἐρϝ and ἐρδ (Pictet 'Ztschr.' v. 47). Ahrens 'Formenl.' p. 108 comes nearest to the truth. Only he incorrectly brings in the Lesbian Aeolic forms in *-σδ*. But we cannot at all prove the existence of **ἐρσδω*. The *δ* of *ἔρδω* I regard as an indisputable proof of my contention that *δ* as a representative of *ζ* was not entirely unknown even to the Attic dialect. I lay the more stress upon this because
623 of Corssen's attack ('Ital. Sprachkunde' p. 360). — There is a similar instance of an *ι*, which has passed into *j* and has disappeared altogether, in the present *δεί-δ-ω*[1], which is to be traced back to *δει-δι-ω*, *δει-δj-ω* (No. 268). We must regard *δεί-δ-ω* as analogous to the Syracusan perfects with the inflexion of a present *δεδοίκω*, *ὀλώλω* (Ahr. 'Dor.' 329): one word of this kind has become established in the usage of

[1] *δείδω*, which occurs only in the 1 sing., is found in the MSS. in seven places of the Iliad and in four of the Odyssey, and frequently, e. g. Κ 39, Λ 470, without any variant, though sometimes with the variant *δείδια*, which at Ξ 54 is referred to Aristophanes. Nauck desires to introduce the latter reading everywhere, and explains *δείδω* as an invention of late grammarians ('Mélanges' iv. 340). I see no reason for such a view. [But cp. Cobet 'Misc. Crit.' p. 270]. In *δειδήμονες* also (Γ 56), though this again is doubted by Nauck, we cannot fail to assume a loss of the *ι*: cp. *μαχήμων*, *ἐθελήμων*. The notion of Mahlow ('Ztschr.' xxiv. 293) that *δείδω* was produced from a form **δει-δοια*, **δει-δο-α*, quite without analogy, by a contraction just as unprecedented — when was *ἀκήκοα* contracted into **ἀκήκω* or *δέδηε* into *δέδη*? — hardly needs refutation.

ordinary Greek, ἥκ-ω, always with a perfect meaning; cp. 'Gk. Verb' p. 394. [Cp. στήκω and γρηγορῶ in N. T. Greek: Moulton's 'Winer' p. 26.] — Finally we must place here also the isolated forms διαφυλάδεν = διαφυλάσσειν, διαφυλάδων = διαφυλάσσων on the same inscription of the Vaxians of Teos (No. 3059, l. 11 and 18), which has supplied us already with other remarkable forms, the counterpart as it were of Τῆνα by the side of Ζῆνα. The simple δ here, it appears, corresponds to a ζ, just as much as in the Boeotian γραμματίδω beside γραμματίδδω (Beermann 'Stud.' ix. 68). We shall meet with other traces of an interchange between verbs in -ζω and -σσω (cp. also πλάζω and πλήσσω No. 367). The modern Greek διαφυλάγω is remarkably analogous, for here, as Maurophrydes shows 'Ztschr.' vii. 143, the γ has the sound of a spirant. We should therefore have, if we take in modern Greek, to assume two by-forms of φυλάσσω, i. e. *φυλάζω (represented by φυλάδω), and *φυλάω, represented by φυλάjω (cp. πεινάjω, etc.).

4. *j* or ι with a δ prefixed.

No one doubts that ζ, especially when initial, often corresponds to a *j* in the cognate languages. But scholars were for the most part contented with this etymological agreement, without arriving at any clear idea of the phonetic relation of the two sounds, one to the other. Schleicher was the first who, in his essay 'Zur vergleichenden Sprachengeschichte' recognized this, and irrefutably established it on p. 48. If we have hitherto seen ζ proceeding directly from *dj*, and therefore defined it phonetically as *dz*, it follows from this that, where ζ corresponds etymologically to a *j*, a *d* has been prefixed to it.

Now to this process we have not a few parallels in other languages. From Modern Greek I have in earlier editions 624
quoted here the word διάκι = οἰάκιον 'rudder.' According to a kind communication from Michael Deffner of Athens the exact pronunciation of this widely current word in ordinary Greek is *djáiki*. The prefixed sound is therefore pronounced as an interdental spirant, and the vowel of the first syllable, owing to the influence of the *i* of the following syllable has undergone the epenthesis, so common in Modern Greek, which

was probably first recognized by Deffner in 'Stud.' iv. 270. It is certainly not too bold to derive this *δ* from an earlier true medial *d*, the representation of which has admittedly been always taken up by this soft interdental spirant. It is worth noticing on this point that the *j* shows no trace of assibilation. To the ancient Greek *ἴονθος*, which has probably come from rt. *ἀνθ* (No. 304) by means of the syllable of reduplication *i*, and means 'blossom,' 'budding,' 'tick' (according to Deffner 'ixodes ricinus') corresponds the ordinary Greek *jòθος*. For this they say in Cephalonia *δjáθος* with the by-forms *djásonas*, *djasóni*, in Maina *gjóθος*. The last mentioned form might confirm the view of Joh. Schmidt, to which we shall return, that the first parasitic growth before the *j* consisted in a *γ*. In some parts, e. g. in Karpathos, *δjatrós* is said for *jatrós*, i. e. *ἰατρός*. The same phonetic process is just as clear in Gothic, but here only in the middle of a word, where the *d* is written doubled, as in Goth. *daddja*, OHG. *tâju*, Skt. *dhájā-mi* (No. 307), *tvaddjê* gen. of *tvai* for *tvajê*, *iddja* 'I went,' according to Müllenhoff in Haupt's 'Ztschr.' xii. 387 = Skt. *ijāja*, Gk. *ἤϊα*. Various Low German dialects show the same parasitic growth; and we have for the High German *ja* sometimes *dja*, sometimes *dsa*, sometimes *dža*, sometimes indeed *ža*. As to this prefixed, or, as we may call it, parasitic *d*, it is quite parallel to the *g* discussed above under *F*, for as the Ital. *guastar* is to the Lat. *vastare*, so is the Cephalonian *δjáθος* to the Mod.Gk. *jòθος*[1]. We shall return to the rela-

[1] The comparisons from the Romance languages, which I previously adduced here, I now omit in consequence of kind communications from Ascoli, because they do not in any case quite correspond. Ital. *diacere* =Lat. *jacere*, with *diacitura* and *diacinto* (=*hyacinthus*) are 'quite isolated by-forms of the forms in ordinary use, *giacere*, *giacitura*, *giacinto*.' Ascoli explains them as more recent modifications of the latter, just as we find for *ghiaccio*=*glacies* the by-form *diaccio*. The mediaeval Latin *madius*=*mājus* (Diez 'Gramm.' i². 248, 254) is not known to us in its true pronunciation. As to the sound of the Ital. *g*, e. g. in *maggiore*=*mājor*, Ascoli maintains decidedly that it is not a compound sound. — Whether the sound, by which the English *j*, e. g. in *John*, is distinguished from the French, e. g. in *Jean*, was added before or after the change of the old *j* into a sibilant, others may decide.

tions of the Keltic *dd* to an original *j*, which Stokes discusses 625
in Kuhn's 'Beiträge' viii. 350, when we draw the deductions from this comparison.

Here we have in the first place to point out the facts.

a. ζ = *j*.

ζειαί [δ 41, 604 cp. Hayman's note], later ζειά 'spelt,' whence ζεί-δωρο-ς ἄρουρα, is connected with Skt. *jáva-s* 'corn,' 'barley,' *jáva-sa-m* 'grass,' the Zd. *yava* (m.) 'field produce,' whence *yévin* (m.) 'fields,' and the Lith. *jáva-s* 'grain,' any kind of corn, pl. *java-í* 'corn on the stalk,' *jav-ënà* 'stubble' (Bopp 'Gl.,' Kuhn 'Zur ältesten Gesch.' p. 14, Pott i[1]. 35). On the ι in the middle of the word cp. p. 577. The connexion with εἰαί, εἶοι· ὀσπρίων καθάρματα 'pods,' 'shells,' ἤια 'chaff,' conjectured by ancient and modern grammarians (Lobeck 'El.' i. 100, Legerlotz 'Ztschr.' vii. 296, Zacher 'Nom. in αιος' p. 71) still seems to me doubtful, though certainly εἶα χόρτος, i. e. 'fodder,' in Suidas would supply a link between them. There is however a considerable difference in the meanings. Besides I know no word in which an initial *j* is represented sometimes by ζ, sometimes by the spiritus lenis. It is possible that ἤια and εἰαί are connected with Skt. *sasá* 'grass,' 'herb,' 'straw,' *sasjá-m* 'seed,' 'fruit of the field;' cp. Cymr. *haidd* 'barley' (Rhys 'RevueCelt.' ii. 115).

ζέ-ω from the rt. ϛεϛ = Skt. *jas*, according to the 'Pet. Dict.' 'to bubble' (of boiling liquids), 'to fatigue oneself,' OHG. *jës*, has been discussed under No. 567.

The words ζημ-ία 'penalty,' 'loss' and ζη-τρό-ς 'executioner'[1] (δημόκοινος Hesych.), probably go back to one and the same root, which we may perhaps compare (Bopp 'Gl.,' Benf. ii. 201, 'Ztschr.' viii. 89) with the Skt. *jam* 'hold,'

[1] Fick 'Ztschr.' xxii. 99 wishes to refer ζητρό-ς, which we know only from this one passage of Hesychius in the meaning of 'executioner,' to ζη-τη-τρό-ς, and hence to ζητεῖν. But ζητεῖν does not occur at all in the sense of βασανίζειν, and the executioner is very different from the official charged with the duty of investigation. — As the ζητρεῖον· τὸ τῶν δούλων κολαστήριον (Hesych.) consisted in a μιλών or *pistrinum* (cp. Pollux iii. 5) other explanations of the word have been attempted (Legerlotz 'Ztschr.' vii. 296). With the meaning 'instrument of punishment' it would come in here very well.

'rein in.' The vowel would be lengthened, as in *κρημ-νό-ς* rt. κρεμ (No. 75), the nasal dropped before the suffix *-τρο*. The Sanskrit words *jātana-m* 'requital,' *jātanā* 'revenge,' 'pain,' which are connected with *jat* (mid.) 'strive,' but also 'requite,' show a remarkable similarity of use to that of our Greek words. Are we to deduce a rt. *jā*, and regard the Skt. *t* as well as the Gk. *μ* as of the nature of a suffix?

ζητέ-ω is referred by Bopp 'Gl.' and Schleicher op. cit. p. 46 (cp. Fick i³. 182) to Skt. *jat*, which according to the
626 'Pet. Dict.' has also, especially in the middle, the meaning 'to strive after anything.' But in this case the length of the vowel remains surprising, and *ζημία* offers no sufficient analogy for it. The use of the Skt. causative *jātájāmi* is entirely different ['attach oneself to,' etc.]. We find a shorter stem in *ζητόρων· ζητούντων* in Hesych., though with the addition *γράφουσι δὲ ἔνιοι ζητητόρων*, but in Photius merely with the explanation *ζητητῶν*, and in *ζί-εται· ζητεῖται* (Hes., E. M.), which we may probably read with the diphthong, like the neighbouring *ζία· κριθή* = *ζειά*. Thus we get a verb *ζε-ί-ω* (cp. *νεικείω*), *ζέ-ω* and a rt. ϛε, which we may the more naturally connect with the equivalent Hom. *δί-ζη-μαι* later *δίζομαι* (Pott ii¹. 36), in that Homer as a rule uses this verb for the notion of seeking, and only once (*Ξ* 258), uses *ζητέω*, which is so common a word in later writers. *δί-ζη-μαι* (by-form *δίζω*) is a reduplicated form = *δι-δjη-μαι*, a present perfect like *ἧμαι*, *κεῖμαι* ('Greek Verb' p. 105 f.). *δ* as a reduplication for *ζ* is very noteworthy as an indication that unmistakeably *ζ* originally contained *δ* as its first element. We are thus led to the conjecture (cp. Christ 151), that the rt. *ja* 'go,' 'attain,' 'strive' fixed itself in Greek also in the form *djā ζη*, and that in the special meaning of 'seek,' that *ζη-τέ-ω* is related to this root as (*ἀμφις-*)*βη-τέ-ω* (cp. *ἀμφισ-βασίη*, *ἀμφίσ-βαινα* and Lat. *amb-igo*, *amb-ig-uu-s*) to rt. βα, and that Skt. *ja-t* and also *jā-k* 'seek,' are to be regarded as only expansions of this same root [1].

ζίζυφο-ν the tree, the fruit of which is called *jujubae*,

[1] The rt. *dī* 'shine' (cp. Fick i³. 108) connected by Brugman 'Morph. Unters.' i. 8, according to the 'Pet. Dict.' never has the presumed meaning 'see.' Hence there is no certain similarity in meaning.

whatever the source from which it got its name, shows unmistakeably the reduplicated form and the representation by *ζ* of the *j* retained in Latin (Benf. i. 686).

ζυγ-ό-ν in its relation to the rt. ϊυϝ *ζεύγ-νυ-μι*, Skt. *jug-á-m*, Lat. *jug-u-m*, etc. has been explained under No. 144; the form *δυογό-ν* in Plato we discussed on p. 612.

ζω-μό-ς 'broth,' would naturally be grouped with *ζέ-ω*, if we were limited to Greek alone; though *ζύ-μη· φύραμα* 'leaven' would be an objection in itself. If we compare, however, Skt. *jū-s*, *jūsha-s*, *jūsha-m* 'meat-soup,' Lat. *jūs*, Lith. *júszè* 'bad soup of leaven stirred up in water' (Nesselmann), ChSl. *jucha* (Schl. 'Ksl.' 133) and the Lett. *jau-t*, 'to stir meal into water,' quoted by Pott W. i. 1232, we arrive at an Indo-Germanic rt. *ju* with the meaning 'stir in,' 'mix.' Now 'to mingle' is a meaning actually established in the 'Pet. Dict.' for the simple rt. *ju*, elsewhere 'to bind,' and also for various compounds of this root (e.g. *pra-ju*) and *ā-jáv-ana-m* means 'spoon for stirring.' The *ω* is 627
probably to be explained from a form with 'added sound' **jau-ma-s*. The *υ* was suppressed, but it left behind the long vowel as in *χῶ-μα* 'heap' beside *χέω* (rt. *χυ* No. 203) and in other cases discussed by Brugman 'Stud.' iv. 159 and above pp. 575, 578. Thus the famous *μέλας ζωμός* may rest upon a primitive tradition. It seems to me awkward to separate *ζωμός* from *ζύμη*, as Fick does (i³. 731) and to connect it with *ζέω*.

ζώ-νη, *ζῶ-μα*, *ζω-σ-τήρ* 'girdle,' 'girth,' *ζώ-νυ-μι* 'gird' seemed to be formed, by a phonetic developement quite analogous, from the rt. *ju*, which in Skt. means 'bind.' The Lith. *jŭsta* 'girdle' seemed also to point to the rt. *ju*. But Pott W. i. 1243, and Fick i³. 732 have since pointed out the Zend words *yâonh* 'put on,' *yâç-tô* 'girded,' and the ChSl. *po-jas-ŭ ζώνη*, *po-jas-a-ti ζωννύναι* (Miklos. 'Lex.' 654). As the meaning here suits still better, this grouping deserves the preference. The root is therefore *jas*. *ζούσθω· ζωννύσθω* (Hesych.) is for **ζο-έ-σθω* for **ζοσ-έ-σθω*, and belongs to a different form of the present.

On the other hand the attempt of Ahrens 'Ztschr.' iii. 165 and Legerlotz vii. 295 to refer the first element in *ζώ-πυρο-ν*

'spark,' and also 'bellows,' *ζώπυρο-ς* (late) 'kindling,' *ζωπυρεῖν* 'kindle,' 'excite,' to some different stem than that of the verb *ζά-ω* is certainly a failure. For *ζῆν* is widely used in a metaphorical sense, extending even to fire in Eurip. 'Bacch.' 8 (*ζῶσαν φλόγα*). For *ζά-ω* itself cp. p. 491.

We pass on to the middle of the word. — Here we have first of all to take into consideration the verbs in *-αζω*, *-ιζω*. In Sanskrit *-jā-mi* (with the final *a* of the stem prefixed *á-jā-mi*) is the most usual termination of denominative verbs. The sound *j* has preserved the same function in the same place in the Teutonic, Slavic, and Lettic languages to a very wide extent. Hence it was extremely natural to regard the *ζ* of the Greek verbs as the successor of this *j*; and this seemed the less bold, as the origination of an initial *ζ* from *j* was completely established. Bopp 'Vergl. Gr.' iii². 762 expressed himself to this effect, and I have always concurred in this view. Objections have been raised on various sides against this doctrine, the force of which lies wholly in the fact that unquestionably the Greek verbs in *-άω*, *-έω*, *-όω* correspond to the Sanskrit verbs in *-á-jā-mi*. If *ἀντιάζω* (Homer. *ἀντιάσαντα*) as well as *ἀντιάω* (Homer. *ἀντιόωσαν*) goes back to a primitive form *ἀντιαjω*, the Greeks treated the same sound under the same conditions within the same dialect in two different ways. Some scholars refuse to admit
628 this. After Pott repeatedly, especially in 'Et. Forsch.' ii. 911, had repeated the view of Bopp, this question was discussed thoroughly by George Schulze in his doctoral dissertation 'On the relation of the *Z* to the corresponding sounds of the cognate languages' (Göttingen 1876), his object being to disprove the thesis that *ζ* within a word represents *j*. Several scholars have expressed themselves to the same effect up to the present time. I have endeavoured in 'Stud.' ii. 180 to refute the objections of Schulze, and have discussed the whole question afresh in the 'Greek Verb' p. 229 ff. As the controversy raises an important question of principle, I will here go into it somewhat more precisely, avoiding however, as far as possible, a repetition of what I have brought forward elsewhere, and stating summarily the main reasons for my theory.

(1) The opponents of the view maintained by Bopp and myself assume for the most part that the oldest stratum of the numerous verbs in -αζω, -ιζω came from nominal stems in δ by the coalescence of the final letter of the stem with a derivative *j* to form ζ, and hence that a form like *ἐλπιδ-jω became ἐλπίζω, just as *ὀδ-ζω certainly became ὄζω. That then on the analogy of a number of verbs so formed, many more were formed by adding -αζω, -ιζω to the most varied nominal stems, without any regard to the final letter. I do not at all deny in principle the possibility of such an origin. E. g. the verbs formed from *n*-stems, like ἀφραίνω, δειμαίνω, ποιμαίνω, have evidently been the pattern for χαλεπαίνω, λευκαίνω, μενεαίνω. But the stock of verbs in -αζω and -ιζω is by no means favourable to such an assumption. Verbs such as might be desired from this point of view, e. g. *λαμπάζω from λαμπάς, νομάζω from νομάς do not exist. Leo Meyer ('Vergl. Gr.' i. 47) endeavours in vain to hunt up a single derived verb in -αζω, in which the ζ arose in the way mentioned. Who can believe that the Homeric πεμπάζεσθαι 'to count on the five fingers' came from the abstract substantive ἡ πεμπάς 'quintity' which occurs first in the Attic writers, or that μιγάζεσθαι ἐν φιλοτῆτι (θ 271) came from μιγάδ-ες 'mongrels.' The attempts are quite desperate to force τοξάζεσθαι out of τοξότης, ἱππάζεσθαι out of ἱππότης with a weakening of τ to δ. It remains the simple fact that out of forty-two verbs in -αζω, quoted by Leo Meyer, not a single one goes back to a nominal stem with δ. Hence if we were absolutely resolved to hold to analogy, we should have to suppose that for the verbs in -αζω it started from *lost* patterns. Perhaps some individual worshippers of this favourite resource do not 629
shrink from even this hypothesis. — The case is somewhat different with the verbs in -ιζω. Here there is the st. παιδ beside παίζω, ἐριδ beside ἐρίζω, ληιδ beside ληΐζω, the Homeric ἐλπιδ beside the post-Homeric ἐλπίζω. But of the sixty-seven verbs in -ιζω with a dental characteristic, besides those mentioned there are at most two or three, for which this origin has no difficulties. Leo Meyer, in order to obtain more instances, has again to resort to the most perilous assumptions, e. g. to refer the Homeric ἑταιρίσσαι 'to associate,'

ἑταιρίσσασθαι 'to associate oneself,' to ἑταιρίς 'amicula,' a diminutive from ἑταίρα in Xenophon, ἀποικίσαι (μ 135) to ἀποικίς, the feminine of ἄποικος, which is used later on, by understanding πόλις, even for ἀποικία. Hence the assumed origin of the verbs in -ιζω is not in any way probable, except in a surprisingly small number of instances, while the enormous majority of these verbs go back to stems ending in vowels, in σ, or in nasals. It is also worth mentioning that Fick in Bezzenb. 'Beitr.' i. 324 ff. has made the exactly opposite attempt, to establish the verbs in -αζω, -ιζω as the source of the nominal stems in δ, though with regard to this attempt, as to other similar ones of this acute inquirer, I reserve my judgement until he has completely published his view as to the origin of such verbal stems. The history of the Greek language is however decidedly not in favour of these attempts, for many of the verbs in -αζω and -ιζω, which he compares, are known to us only from a time much later than the nominal forms, which are said to have been derived from them.

(2) If then this widely prevalent view is attended by great difficulties, another might possibly be tried, which has not been put forward, so far as I know, by any one, but which is not far removed from the theories favoured, e. g. by Corssen ('Ital. Sprachkunde' p. 363 ff.), viz. to see in the ζ a suffix -δο, supposing that, e. g. to the stem δικα first a suffix -δο was appended (*δικα-δο), and that δικά-ζω came from δικα-δ-jω, as from φαρμα-κο, φαρμακ-jω, φαρμάσσω. But where are such nouns to be found? Corssen has endeavoured to point out such, but those which he adduces are partly words where δ belongs to the root, like κέλαδ-ο-ς (see below p. 730), partly obscure words like ὄμα-δο-ς or names of places, perhaps not even of Greek origin like Τένεδος, Ἄβῡδος. *χαν-δό-ς, which as an adjective plays a prominent part with Corssen, is quite apocryphal. We have authority only for the Homeric χανδόν [φ 294 only] 'greedily,' also in Callimachus 'Frag.' 109, and the imitation of this verse in 'Anthol. Pal.' Append. 361, 4
630 where ἐκ χανδῆς κύλικος is the traditional reading, but one corrected long ago by the editors, cannot possibly prove the existence of this abnormal form (Lobeck 'Paralip.' 149). Besides, even in the little troop of these shadowy existences,

brought together with so much pains, there is not a single one, which is accompanied by a verb in ζ. For the Homeric ὀπάζειν (rt. ἐπ σεπ) cannot be derived without violence from ὀπηδό-ς (Dor. ὀπᾱδό), for the denominative of this is rather ὀπηδέω. And ὀπαδό-ς belongs to the rt. πεδ (cp. πηδάω) rather than rt. ἐπ.

(3) On the contrary everything becomes plain and clear, as soon as we regard the ζ as the successor of *j*. As from the Skt. *svana* 'sound' comes *svaná-ja-ti* 'he s unds,' so from δικᾱ comes δικάζειν, from σκια σκιάζειν. Naturally the α also represents the ο of the ο-stems: λιθάζειν, just as e. g. in αἴθα-λο-ς from αἴθο, and loses an ν in ὀνομάζειν (st. ὀνομαν). The relations to pure α-stems are especially plain in frequentatives, such as οἰνοποτάζειν, ῥυστάζειν. The verbs in -ιζω fall into two divisions, those in which the ι belongs to the stem, e. g. χαρί-ζω, ὑβρί-ζω, and those in which ι has originated from an old α through the intermediate stage of an -εζω, which has not disappeared entirely, without leaving any traces ('Greek Verb' p. 241 f.): νομίζω, αἰνίζω. Of course both methods of formation subsequently extend beyond their original sphere: e. g. θαμίζω (θαμα), ἀγων-ί-ζομαι.

(4) The view that the *j* of these denominatives sometimes became ζ, and sometimes was dropped, is greatly strengthened by the extensive variation in the language between the two formations, e. g. ἀγαπάζω and ἀγαπάω, both Homeric, αἰνέω and αἰνίζω, ἀκάχησε beside ἀκαχίζω, -κτί-μενος and κτιζω, on which I have given further evidence in the 'Greek Verb' p. 235 ff. We have a remarkable form to confirm the close relationship between the verbs in εω and those in ζω in the Cyprian καλήζω cited by Herodian ii. 332 beside the Lesbian καλήω. The primitive form of both was *καλέjω ('Greek Verb' p. 248). One of the most far-reaching anomalies of the Greek verb, the sporadic σ, which appears in the perfect middle, in the passive stem with θ, and in numerous nominal stems (ἔσπασται, μνησθῆναι, γνωστός, χρησμός) is best explained, as I think I have shown in 'Greek Verb' p. 522 ff., from the early wavering of the language between the two types.

(5) Now is the principle, that one and the same primitive

form cannot part off into two different later forms, really so certain, as to make impossible an explanation which recommends itself to us, as we see, from so many sides? I may refer
631 on this point to my discussions of sporadic change of sounds on p. 426 ff. We have learnt to recognize roots like *μεργ* (No. 150) and *μελγ* (No. 151), *ἀρκ* and *ἀλκ* (No. 7) the duality of which is based upon the parting of the *r* into *r* and *l*. The Skt. suffix *ēja* occurs in Greek in three phases (cp. 'Stud.' ii. 187), *ηιο*, e. g. Herod. *ἀνθρωπήιο-ς*, *ειο*, e. g. Homer. *χρύσειο-ς*, *εος* also retained as early as Homer in *χρύσεο-ς*, to say nothing of the 'splitting' of the *a* into *α*, *ε*, *ο*, because we have now before us on this point such diverse attempts which yet can hardly altogether deny the fact. The transformation of the *ϝ* took a still more varied form. A varied treatment of those sounds in particular, which even in early times in the independent life of a nation were ill-suited to its organs, seems to me to be easily comprehensible psychologically. I agree on this point with a remark of Joh. Schmidt's, who expresses himself in 'Ztschr.' xxiii. 293 in the following way: 'at the time when in most of the cases where *j* stood alone it had been lightened into a rough or a smooth breathing, in those which were left it became hardly pronounceable, and required a special exertion of the organs of speech. The consequence was that in order to articulate *j* the corresponding sonant closed sound was used at the beginning, etc.' I do not attempt to decide whether really a palatal *g* formed originally the strengthening of the *j*, as Joh. Schmidt thinks, and then this afterwards passed into a *δ*, or whether the latter came in at once. But what is there to surprise us if, in spite of this attempt to succeed in pronouncing a sound which was not yet entirely lost to the linguistic sense, in other cases this entirely disappeared? Both phases of the language then extended themselves further, and are preserved to us side by side like so much that has originated successively.

(6) What we put forward here hypothetically, is universally recognized for the beginning of a word. There is a *ζ* as the representative of a *j*. Is there now any adequate reason to deny this process persistently for the middle of a

word? I think not. On p. 624 we learnt to recognize analogies of a *d* produced before *j* in the middle of a word. The objections of Schulze come fundamentally to this, that a *j* in the middle has everywhere originated as an *i*, and remained a semi-vowel, while it is only the strictly consonantal *j* which has a tendency to change into *ζ*. But the formation of the comparatives in *-ιων*, an important source throughout of instruction as regards the *j* in its relation to *ι*, shows, I think, unquestionably that such a distinction is impossible. For in *κακ-ίων*, *ρίγ-ιον* the original vowel is preserved pure, while in *ἥσσων* from *ἡκ-jων*, and *ὀλίζων* from *ὀλιγ-jων* the *j* which has come from *ι* appears in a transformation which decidedly presupposes that it was pronounced as a consonant. *κεν-εό-ς* and Hom. *κεινό-ς* (No. 49) presuppose a *κϝεν-ιο-ς*, which approximates closely to Skt. *çūn-já-s*, but the same sound 632
assimilated itself as a consonant in the Aeol. *κέννο-ς* and finally disappeared in *κενό-ς*. How do these facts agree with this rigorous theory?

(7) Finally one more point may be briefly mentioned, which may be most easily understood from the method of explaining the *ζ* here advocated, the formation of the aorist and future of these verbs by *ξ* instead of *σσ* and the later *σ*, which became the rule in the Doric dialect, but is common also in Homer. I have discussed the question thoroughly in the 'Greek Verb' p. 453 ff. Following Ahrens 'Dor.' 94, and in essential agreement with Joh. Schmidt 'Ztschr.' xxiii. 296 I regard the *ξ* as the product of *j* and the *σ* which is the mark of the tense, in which *perhaps* a thicker sound, like a *g*, was here produced before *j*. In any case the Hom. *πτολεμίξαι* is related to the assumed **πτολεμιjω* as the ModGk. *kladepso* is to the present *kladéwo* (*κλαδεύω*). The forms with *ξ* date therefore from a period, in which the palatal spirant still survived, while those with *σσ* (*σ*) are a later type from the time, when *dz* had already taken the place of *j*: **πολεμιδσαι*, *πολεμίσσαι*, *πολεμίσαι*.

Besides these verbs I know of no certain instance of the representation of a *j* in the middle of a word by *ζ*. This double consonant is, as a rule, rare in the middle of noun-formations. But we may with some probability quote the

following. — κνυζᾶν 'snarl,' 'whimper' (κνυζηθμό-ς) reminds us of Skt. *knū* (*knū-nā́-mi*) 'to give forth a noise,' though this is an unauthenticated root. We must admit that in this case there are other possible means of explaining the δ. — Τροιζήν (also Τροιζήνη), which is situated not far from the sea, and if only on that ground, is naturally supposed to be cognate with Τροία and the rt. *tra* 'to cross over' (cp. No. 238), with the name of the people Τροζήνιοι or Τροιζήνιοι (E. Curtius 'Peloponnes' ii. 574), might easily owe its ζ to a *j* developed from οι: Τροι-ι-ην: it is not easy to find another explanation of it. The suffix would be derivative, as in κωλήν 'the region of the hips,' from κωλῆ. Τροιζήν would then mean something like 'region of the coast' (cp. Πειραιεύ-ς with περάω). — Finally we may mention here the adverbs of place in -ζε. That these are formed from σδε, that is, by the addition of the locative -δε to the acc. plur., is a view which since Buttmann has been often repeated ('Ausf. Gr.' ii². 350) [Jelf. § 339 obs. 5], though Lobeck in his note here has pointed out the improbability of this explanation. Cp. also Pott i². 518 note, and Kühner i². 55. Among the forms of this kind, which are not numerous, — I find only 11 quoted — this view only suits Ἀθήναζε and Θήβαζε, which are derived from plural nouns; and here we must not over-
633 look the fact that we find not only Θῆβαι, but also Θήβη. On the other hand ἔραζε, χαμᾶζε are most decidedly opposed to it, inasmuch as, so far from finding the plural of these stems actually existing, we cannot even conceive of their existence, any more than of a Latin *humos* for *humum*. The plural is also excluded in the case of μέταζε [from μετά; restored from grammarians in Hes. 'Op.' 392, where the MSS. have μεταξύ]. θύραζε may belong to θύρα as well as to θύραι. Where is the sense then of inventing *ad hoc* plurals for Βήσαζε, Θριῶζε, Ἀφίδναζε, Μουνυχίαζε, Ὀλυμπίαζε, of which there is not a trace elsewhere[1]? Apollonius Dyscolus knew nothing of this doctrine. He regards ζε as a phonetic variant for δε ('De adverb.' p. 204 ed. R. Schneider). But δε is almost always clearly added to accusative forms, our ζε

[1] [ἐπὶ τὰς Ἀφίδνας occurs in Herod. ix. 75 (Baehr) and Strabo Bk. ix. p. 397 writes Ἄφιδνα (λέγουσι δὲ καὶ πληθυντικῶς Ἀφίδνας)].

evidently to the stem of the word. Hence it seems to me by no means improbable that the ζ here came from the *j*, which we meet often in the formation of cases, especially in datives, like Skt. masc. *áçvā-ja*, fem. *açvā-jāi*, in the instrum. fem. Skt. *açva-jā*, in the gen. fem. Skt. *açvā-j-ās*, some of which have Zend forms corresponding. Greek forms in -ζε we should be inclined to compare either with dative or with locative forms in the cognate languages. In the former case *θύρα-ζε* for *θυρα-jε* would have to be compared with the Skt. *açvā-jāi*; but the Indian diphthong presents some difficulty in its relation to ε, and there is some objection to limiting ourselves to masculine forms in *-ājа*. Hence Scherer's notion ('Zur Gesch. d. d. Spr.,[2]' 411) of comparing -ζε with the termination *-ya*, which (according to Justi p. 387) occurs sometimes in Zend, e. g. in *zaçta-ya* 'in the hand,' and with *-je* which is found in Lithuanian with the same force, e. g. in the equivalent *rànko-je*, is more attractive. The more definite determination of this point can only be undertaken in connexion with the difficult analysis of the case-suffixes. But it would be hard to prove for the ζ in this place any other origin than that which has been mentioned. The interchange of directions in the case of such adverbs is established also in other instances. — The Homeric *αἰ-ζηό-ς* or *αἰζήιο-ς* 'youth,' belongs, according to Benfey's conjecture (ii. 210), to the Skt. st. *jav* in *jáv-ījas* 'younger,' and therefore, as we assumed on p. 589, to Gk. *ἥβη*. The first syllable is taken by Brugman 'Stud.' vii. 214 followed by Zacher 'Nom. in *αιος*' p. 63 as a reduplication (cp. *δαι-δάλλω*), so that we should have to deduce an original **jαι-jāϝo-ς*, in which *j* at the beginning disappeared, while within the word it became ζ.

(b) *δι* = *j*

We have tried to show that during a certain period in the life of the language a parasitic *δ* was easily generated before *j*. This justifies the conjecture that the phonetic group *δj*, 634
which was thus produced, instead of becoming ζ, as in the cases already mentioned, sometimes by means of the vocalization so common in the case of *j*, was changed into *δι*, and that therefore the syllable *δι* occasionally represents nothing but

an original *j*. This origin of the syllable appears to me very probable, at least in the case of one derivative suffix. This is the adjectival suffix *-διο-ς*. This suffix, together with several other similar ones, has been discussed by Budenz ('Das Suffix *ΚΟΣ*' Gött. 1858) and Bühler ('Das Secundär-suffix *ΤΗΣ*' Gött. 1858); but I cannot accept their point of view. Benfey i. 54 had identified the suffix *-διο* with the Skt. *-tja*, which is in this language mainly used to derive adjectives from adverbs of time and place: *tátra* 'there'—*tátra-tja-s* 'of that place,' *purás* 'before'—*pāuras-tjá-s* 'the foremost' (Bopp 'Vgl. Gr.' iii². 431). In Greek, at any rate for the Ionic dialect of Attica, in accordance with the tendency to change *τ* before *ι* into *σ*, we have to expect the form *-σιο*, and we do find the suffix *-σιο* in a usage quite similar, *πρυμνή-σιο-ς* 'in the hinder part of the ship,' *Ἰθακή-σιο-ς*, *ἡμερή-σιο-ς* (Aesch. 'Ag.' 22), *δημό-σιο-ς* (cp. Lobeck 'Prolegg.' 425 sqq.). Now it is not at all probable that the same suffix should, by a softening of the *τ* to *δ*, have been also preserved in the form *-διο*; for *τ* and the *σ* which so often takes its place before *ι* are among the favourite sounds in Greek word-formation, and the softening of *τ* to *δ* in Greek, as was shown on p. 536, is an extremely rare phenomenon. The adjectives in *-διο-ς* are not common, as a rule, in the older language (Lob. 'Prol.' 351 sqq.), and are never connected with those in *-σιο-ς*. In Homer we find *διχθά-διο-ς*, *κρυπτά-διο-ς*, *μιννυθά-διο-ς*—*κουρί-διο-ς*, *μαψ-ι-δίως*, *ῥηΐ-διο-ς* (by the side of *ῥεῖα*), later *ἀί-διο-ς* (from *ἀεί*), *ἐπιθαλασσ-ί-διο-ς*, *μοιρ-ί-διο-ς* [1], *νοσφί-διο-ς*, *νυμφ-ί-διο-ς*, *παυρ-ί-διο-ς*, *φωρ-ί-διο-ς*, etc. It was only in Herodian's time (ii. 924) that there came to be *μύριον πλῆθος* of them. It is very noteworthy that of the older forms of this kind not a single one proceeds from the *δ* of the derivative suffixes *-αδ*, *-ιδ*. This is the case only in later formations like *Ἑλλάδ-ιο-ς*, *Παλλάδ-ιο-ν*, *Κυπρίδ-ιο-ς* (Nonnus). These adjectives show rather a clear affinity to the Aeolic patronymics in *-αδιο-ς* from stems in *-α*, like *Ὑρρά-διο-ς*, *Τινά-διο-ς* (Ahr. 157), while on the other hand it is precisely these patronymics

[1] *μοιρά-διο-ς*, the older form, occurs in Eurip. 'Epigr.' 2, 4 (Bergk 'Lyr. Gr.³' p. 590) and is retained by Bergk and L. Dindorf (Steph. Thes.) also in Soph. 'O. C.' 228 in accordance with the apparent reading of La.

which are connected with forms in *-α-ιο-ς* (*Τύρρα-ιο-ς*, Thes- 635
salian *Πολεμαρχίδαιο-ς* 'C. I. G.' 1766), and *-ιο-ς* (*Τελαμών-ιο-ς* [1]). The corresponding patronymics from stems in *α*, in Skt. end in *-ējas* (*dāsá-s* 'slave'—*dāsējá-s* 'son of a slave'), in Lat. in *-ē-ju-s*: *plēb-ēju-s*, *Pomp-ēju-s*, *Petr-ēju-s* (cp. Osc. *pumpaííans* = *Pompeianus*, Aufrecht 'Ztschr.' i. 229, Corssen ib. v. 88 ff.). Thus it becomes in a high degree probable that the *δ* developed itself here out of the *ι*, and indeed from what was at the time a consonantal *j*, so that thus *Τύρραιος* and *Ὑρράδιος* are to each other as the verbs in *α(j)ω* to those in *αζω* (*αδjω*). — Finally the pronominal adjective *ἴ-διο-ς* will also find its explanation in this connexion. The form *ϝίδιο-ς*, found five times on the Heraclean Tables, leaves no doubt that its stem is that of the reflexive pronoun Skt. *sva*, Gk. *(σ)ϝε* (No. 601), especially as the meaning of this pronoun was not originally limited to the third person, but was that of possession in general. Hence even Bopp 'Vgl. Gr.' ii². 225 connected the stems *σϝε* and *ϝι-διο-*. But he endeavours here also to find a support for the *δ* in a Sanskrit dental, i. e. in the *d* of the possessives *mad-ī́ja-s*, *tvad-ī́ja-s*, on the analogy of which he assumes the non-existent **svad-īja-s*. These Indian forms have evidently come from the sts. *mad* and *tvad*, which sometimes in Sanskrit take the place of *ma* and *tva*. Traces of these expanded stems do indeed occur, as I have tried to show in 'Stud.' vi. 417 ff., in the Lat. *mēd*, *tēd*, *sēd*, and are not wholly improbable even for Greek. But it seems to me simpler to take the *δ* in this form, just as in those mentioned above. The forms of the possessive pronouns collected by Bopp prove that the Indo-Germanic suffix *-ja* (in its strengthened form *-īja*), was added immediately to the stems of the personal pronouns; hence Gk. *ἐ-με-jo-ς*, *ἐμε-ο-ς* *ἐμό-ς*, Lat. *me-iu-s* *me-u-s*, where however the vocative *mi* still points to *me-iu-s*. In this way from the st. *σϝε-*, besides the shorter form *σϝο-ς* or *σεϝο-ς* = *sovo-s*, came also *σϝε-jo-ς*, *σϝε-δjo-ς*, later *σϝε-διο-ς*, *ϝε-διο-ς* and finally *ἴ-διο-ς*. The last answers exactly to the Skt. *svīja-s* 'own.' The softening of the *ε* to *ι*—as from *α*

[1] The frequent use of the possessive adjectives in *-ιο-ς* as patronymics is treated thoroughly, and with full material from inscriptions by K. Keil 'Inscr. Thessal. tres,' in the letter of congratulation from the Pforta on the occasion of the jubilee of Boeckh's doctorate (1857) p. 5 sq.

to ι in the words quoted on p. 633—has its analogy especially in the dat. pl. σφί-σι by the side of σφε[1]. It cannot surprise
636 us that in later times no kinship was felt to exist between forms phonetically so different.

(c) δε = *j*.

We have shown above, on p. 607 f., that *j* or an ι akin to it not uncommonly passes into ε, and therefore we may expect to find δε also for δ*j*, and in so far as the δ before *j* is parasitic, for a simple *j*. This phonetic change we assume for nouns in -δεο-ς like ἀδελφ-ί-δεο-ς, θυγατρ-ί-δεο-ς—for so we ought probably to accentuate according to 'E. M.' p. 16 with Nauck 'Aristoph. Byz.' 145—which in Attic end in -δοῦ-ς: ἀδελφι-δοῦς, θυγατριδοῦς. This τύπος συγγενικός, as the old grammarians called such formations (Lobeck 'Phryn.' 299), denotes the son almost in a hypocoristic fashion. To this also belong especially υἱι-δοῦ-ς, ἀνεψια-δοῦ-ς and many comic words like τηθ-αλλα-δοῦ-ς 'grandmother's little boy' (No. 310), the connexion of which with the patronymics in -δη-ς, and the patronymics of birds in -δεύ-ς (ἀετ-ι-δεύ-ς) has been recognized by Göttling 'Accentlehre' 168 and Lobeck ad 'Aj.' v. 880. We may now place these words with those in -διο-ς discussed above, and may hence compare ἀνεψιά-δεο-ς with Ὑρρά-διο-ς, and the Sanskrit words in -*ja-s*, like *pítr-ja-s* = πάτρ-ιο-ς *patr-iu-s*. Besides -*ja-s* we find -*īja-s*, which is identified with it by Bopp, similarly used in Sanskrit, e. g. *svasr-ī́ja-s* 'sister's son,' from *svasṛ* 'sister.' In this suffix, which according to Bopp ('Skt. Gr.' §584, 21) 'forms patronymics from words of kinship,' the Greek -δεο-ς has its counterpart. The ι, which takes the place of an *o* at the end of the stem of the primitive noun, may be compared to the *ī* of *ī-ja-s*, while *ja* is represented by δεο. Such an ι originating in *o* met us before on p. 630 in some of the verbs in -ιζω.

(d) δ = *j*.

To start from perfectly safe ground, we see an initial δ take the place of *j* in the Boeotian, and probably also Laconian (Ahr. 'Aeol.' 175, 'Dor.' 95) δυγό-ν = Skt. *jugá-m*, and in other

[1] I see no reason to regard σφί-σι as an analogical expansion from σφί-ν, with Brugman ('Ein Problem' p. 14).

words which we have discussed on p. 620 f. This δ evidently bears the same relation to the ζ of the other dialects as that of the Boeot. Δεύ-ς, which we saw to be an old inheritance, to the ζ of ordinary Greek. In the same dialects also a *j* in the middle of a word, e. g. in the Boeot. ἰαρειάδδω = ἱεράζω θερίδδω = θερίζω was represented by δδ, precisely as a *j* based upon a primitive *dj* or *gj*, e. g. ῥέδδω = ῥέζω. Besides there is one case of an initial δ in Aeolic, as against an ι, without there being a trace of a sibilant here. To the Hom. 637
ἰαύω (No. 587) corresponds Aeol. δαύω (δαύοις Sappho 'Fr.' 82 Bergk), which can hardly have arisen except through the intermediate stage δjαυω.

In the formation of Greek words δ takes a very important place. From the earliest period of the Greek language we know of numerous nominal stems in -αδ and -ιδ, and the widely distributed patronymics in -δα. With both of these formations some scholars have endeavoured to compare from the cognate languages what has very little correspondence. For we have seen repeatedly that the attempt to explain the Greek δ from the widely diffused suffixed *t* is a failure; and this has now been generally recognized[1]. On the other hand Bréal 'Mémoires' i. p. 201 ff., starting from the uncontested fact that there was an Indo-Germanic pronominal st. *da*, attempts to maintain the original character of the δ wherever it appears in the formation of Greek words, by employing the cognate languages, and Corssen, in his thorough-discussion of this question ('Ital. Sprachkunde' p. 363 ff.), has the same aim in view. The fact is that in Sanskrit a suffix *-ad*, which might perhaps be compared with the Gk. αδ in λαμπ-αδ, is extremely rare. From the dialect of the Vedas Lindner (p. 38) adduces four feminines with this suffix. *dṛshád* 'millstone,' *bhasád* 'posteriors' (by-form *bhāsada*), *vanád* according to the 'Pet. Dict.' *perhaps* 'desire,' *çarád* 'autumn.' There is further from the later language *darád* for which we find given the meanings 'heart,' 'bank,' 'mountain,' 'abyss,' 'fear,' meanings

[1] Leo Meyer's renewal of this attempt, and what he further adds (Bezzenberger's 'Beiträge' iv. 1 ff.) confirm me in the conviction that we cannot arrive at the patronymics in any other way than that here suggested.

hard to reconcile. For no one of these words, except *vanád* (rt. *van* 'desire'), is a root to be discovered. Latin does not present a single stem in *ad* or *ĕd*, but a few in *id*, hardly more than *lapid*, *capid*, *cassid*, *cuspid*, *promulsid*, and a still smaller number in *d*: *fraud*, *laud*, in the case of which it is not even certain that the *d* is to be taken as a suffix. Among the stems in *id capid* (nom. *capis* 'goblet'), assuming that it is not a foreign word (cp. on No. 34), admits most easily of being referred to a rt. *kap*, *lap-id* Fick ii³. 218 attractively compares with λέπας 'rock,' 'cliff.' Still *Λάπιθο-ς*, the name of a mountain in Arcadia, readily occurs to us, so that we might trace back the *d*, as is always legitimate within a Latin word, to an original *dh*. The greatest degree of likeness is presented by *pecu-d* beside *pecu*, which is like *ἐρι-δ* beside *ἐρι* and may be immediately compared with *χλα-μυ-δ*, *προσ-ηλυ-δ*. *hērēd*, *mercēd*, *custōd* with their long vowels, evidently secondary
638 formations, have absolutely nothing corresponding to them in Greek. We can therefore at most say that a *very* small number of Latin stems in *d* bear a certain resemblance to the common nouns in *-ιδ* and *-υδ*, while the widely diffused employment of the suffixes *-ῑδ*, *-ιδ*, *-αδ* to form feminine personal names and diminutives has absolutely nothing corresponding to it among the Romans, and, besides this, the *d* in Latin cannot in any single form be with certainty proved to be a sound identical with *δ*. Hence as early as my essay 'De nom. form.' pp. 6–10 I endeavoured to show that this *δ* did not belong either to the stem or to the suffix, as an integral part. This was recognized by Kuhn in his review of this essay ('Jahrb. f. wissensch. Kritik' 1843 p. 31) at any rate for some important classes of forms, with the addition that this *δ* seemed to have originated from a *j*. This remark, although accompanied by phonetic analyses, which differ from the views here stated, suggested to me the whole of the investigation of the relation of *δ* to *j* here given. It was indeed a very natural idea to explain a sound which was as rare in other languages as it is common in Greek, from phonetic tendencies, which are limited to Greek.

In the criticisms which my theory has met with recently, strangely enough the fact upon which I support it especially,

the *mobility* of the δ in Greek, has been passed over in perfect silence. Here belong before all

a. The feminines in -ι and -ιδ.

The most common suffix for the formation of the personal feminine in Sanskrit is ī. To this suffix corresponds Gk. ι[1], which as a rule is short, but which in some noteworthy Homeric words, discussed most accurately by Hartel 'Hom. Stud.' i². 106, is also long: βο-ώπι πότνια Ἥρη Σ 357 (cod. Ven.), βλοσυρώπις ἐστεφάνωτο Λ 36 [cp. Laroche 'Hom. Textkritik' p. 385]. It does not seem excessive boldness in the case of these forms to mark the length by the accent, even against traditional authority [βοῶπι Laroche, etc.]. To these we may add the plural ἐυ-πλοκαμῖ-δ-ες (β 119, τ 542), where, besides the length, we meet the δ, which is here in question. Now this δ, both after a long and after a short ι, is often a 639
moveable element. This is seen most strikingly from dialectic by-forms like Πάρι-ος (Hom. Pind.), Θέτι-ος (Pind. 'Isthm.' 7 (8), 60), μήνι-ος (γ 135) by Πάριδ-ος (from Aeschylus onwards), Θέτιδ-ος (Δ 512, etc.), μήνιδ-ος (Schol. Ven. A on Α 1), νήνι = νεανίδι (Anacr. 'Fr.' 14, 3), ἄψι-ν Hesiod Ἔργα 426 by ἀψῖδα (Hom. dat. plur. ἀψῖσι), Καλλί-ν, Σωτηρί-ν, τεχνῆ-τι-ν ('Inscriptions de Delphes' 90, 7; 32, 10; 177, 5) Aeol. κνᾶ-μι-ν, σφράγι-ν for κνημῖδα, σφραγῖδα (Bekk. 'Anecd.' 1207), πάϊν Εὐξένω on an inscription from Mitylene 'C. I. G.' 2138 = Att. παῖδα: and conversely in Sappho according to Herodian on Γ 219 πολυ-ίδ-ρι-δ-ι and even in Sophocles ἴδ-ρι-δ-ε: in Phrynichus ἴδριδες according to the same authority. This δ occasionally attaches itself not merely to the suffix ι, but also especially to the suffix -τι: φρον-τίδ-ος (cp. Ion. πίσ-τι-ος), κακο-φάτιδ-α (Aesch.) by the side of φάτι-ς, Ion. gen. φάτι-ος. But there can be no doubt about the identity of this τι with

[1] The decisiveness, with which Pott ii². 889 rejects the identification of the Greek suffix with the Indian of the same form, is evidently only occasioned by the belief, that the Skt. ī originated from *jā*; but this theory is far from being proved. And even if in the Indo-Germanic time -*iā* in part passed into ī, this would not prevent a *j* from developing from this ī at a much later time, which *j* survives in Greek as δ. It cannot possibly be mere chance that the same vowel should serve in both languages for the same purpose of forming a feminine.

the extremely common suffix, which serves to form *nomina actionis*. *πελλί-ς πελλίδ-ος* 'bowl' corresponds to the Skt. *pālavī*, 'a kind of vessel' and to the Lat. *pelvi-s* (st. *pelvi*) (Joh. Schmidt 'Voc.' ii. 5.) *κλῃΐ-ς* (later *κλεί-ς*) gen. *κλῃΐδ-ο-ς* (later *κλειδ-ός*), Dor. *κλᾱΐς* unquestionably corresponds to the Lat. *clavis* (No. 59). Bopp ('Vgl. Gr.' iii². 188) recognized that the *δ* attached sometimes to the feminine suffix for feminine *nomina agentis* *-τρι* (= Skt. *trī*), e. g. in *λῃσ-τρι-δ* (cp. Skt. *dā-trī* 'a woman who gives'), was an accessory sound, without however explaining this by the way of pure phonetics.

It is therefore an established fact that *δ* after *ι* is, in the nominal inflexion of a number of formations, not merely a moveable sound, but also one which, when regarded from the point of view of other cognate languages, is seen to have been subsequently added. If we now proceed to ask what may have been the origin of a sound of this character, there are, so far as I can see, only three possibilities: viz. the following:

1. *δ* might possibly be a primitive element of the same kind as the *c* in Latin feminine words denoting persons, e. g. *gen-e-trī-c* beside *ǵán-i-trī*. This is the view of Bréal and of Corssen. The Greek language is not wholly without such paraschematisms; e. g. we referred the stem *γυναικ* to *γυνα-κι* (No. 128), where *-κι* is a suffix of the kind. Beside the shorter st. *μασ-τι*, preserved in the Homer-dative *μάστῑ*, we have the equivalent st. *μαστῑ-γ*, expanded by *γ* (doubtless for an earlier *κ*). The only difference is that this guttural element, in connexion with different vowels, is abundantly represented in all Indo-Germanic languages, especially in diminutive formations, e. g. *sen* beside *sen-ec*, *mater* beside *mater-cu-la*
640 ('Ztschr.' iv. 215), etc. From Irish, too, Windisch ('Beitr. z. Gesch. d. deutschen Sprache' iv. 211, 'Die ir. Auslautsgesetze') proves that in the same way the suffix *-ach* (=Gk. *ακ*) only maintains its place in a part of the case-forms: e. g. *cathir* 'town,' gen. *cathr-ach* (for **catar-ac-as*). We can prove nothing of the kind for *δ*; it is, and remains in this use, *specifically Greek*.

2. A second possibility, which would naturally present itself for the separate formation of an individual language,

would be that starting from a small circle of forms, in which the dental sound was very old, it gradually attached itself by extending analogy to others. But where are we to find this small circle? The patterns for the imitation thus conjectured do not exist, for no one will appeal to the few Latin *d*-stems mentioned on p. 637. However, even the view which I advocate of course does not exclude the possibility that a large part of the stems in *-ιδ*, which become constantly more numerous in the course of the history of the Greek language, arose from the extension of a type which at first was by no means very common.

3. Thus there remains the third explanation, to which I hold, viz. to explain the whole type phonetically by assuming that a *j* developed out of the vowel *i* survives in this *δ*.

Monosyllabic stems in *ī* in Sanskrit before several case-endings beginning with a vowel generate a *j* from this *ī*, which thus becomes short, e.g. st. *bhī* 'fear,' instr. sing. *bhi-j-ā́*, dat. *bhi-j-é*, nom. plur. *bhí-j-as*, while those with more than one syllable let the *ī* pass wholly into *j*: *narī* 'woman,' nom. pl. *narj-as*. The expansion of *ī* to *ij* is quite analogous to that of *ū* to *uv* in Sanskrit, e.g. st. *bhū* 'earth,' gen. sing. *bhu-v-ás* [cp. Schleicher 'Comp.[3]' p. 29], and, to say nothing of doubtful instances, finds an unmistakable analogy in the late Latin *vidu-v-iu-m* from *vidua*. In the same way, as I conjecture, *Θετι-ος* became first *Θετιj-ος*, then *Θέτιδ-ος*. The quantity of the *ι* varies much in these stems. *Θέτῑ* is found as a vocative *Z* 385 and elsewhere by the side of the short vowel, which even in Homer is the prevailing one: for the traces of the long vowel in *θοῦριν*, *Ἔρις*, *πάις*, I may refer to Hartel 'Homer. Stud.' i[2]. 105. Conversely we have in Alcaeus p. 15, 5 (Bergk[3]) *κνάμῑδες* instead of the Homeric *κνημῑδες*. Like the *j* in Sanskrit, the *δ* naturally occurs only before vowels. In Greek the accent favours the developement of this sound, inasmuch as it brings the *ι* into greater prominence. *ἐλπί-ς* is of the same formation as *πόλι-ς*, cp. *Ἐλπι-νίκη*; we have *ἐλπίδ-ος* but Ion. *πόλι-ος*, (cp. *αἰγί-οχο-ς*), hence also the Aeol. *κνᾶμι-ν* beside the ordinary Greek *κνημῑδ-α*, and even in Euripides the acc. *Αὖλι-ν* ('Iph. A.' 14, 121, 350)

beside *Αὔλιδ-α* (v. 88), and conversely *φρον-τίδ-ος* by the side
641 of *πίσ-τι-ος*. There is certainly no consistency of practice, for we have genitives like *ἔριδ-ος*, *ὄπιδ-ος*, but in the acc. *ἔρι-ν*, *ὄπι-ν* by the side of *ἔριδ-α*, *ὄπιδ-α*[1].

Among the personal feminines in *-ι* with an accessory *δ* the patronymics deserve to be brought into especial prominence. The Skt. *-ī* serves for precisely the same purpose, and indeed with the same accentuation of the vowel (Bopp 'Vergl. Gr.' iii². 376): *Drāupad-ī* daughter of *Drupada*, like *Πριαμί-ς* daughter of *Πρίαμο-ς*, so *Ταντα*λί-ς, *Δαρδανί-ς*, *Τυνδαρί-ς*, etc. (Angermann 'Stud.' i. 1, 45 ff.). The final vowel is thrown away before the *ι* in both languages. After a consonant simply *ι* is added: *Πανδιον-ί-ς*. The diphthong *ευ* is in the Homeric dialect treated as in the gen.: *Νηρεύ-ς Νηρη-ΐ-ς*, i.e. *Νηρεϝ-ι-ς*, cp. *Νηρῆ-ος*, *Ἐρεχθη-ΐ-ς* (cp. Ebel 'Ztschr.' iv. 171). The feminine patronymic, however, in its formation quite agrees with numerous other half adjectival forms. It does not admit of doubt that *Πριαμίς* denoted originally 'she who belongs to Priam,' in whatever sense of the word[2]. Hence we have also feminine names of tribes, as in Pindar *Αἰολη-ΐ-ς* belonging to the masc. *Αἰολεύ-ς*, and in fact the meaning of such adjectives is extended to that of relation in the widest sense; thus *Z* 193 *τιμῆς βασιληΐδος*, Pind. 'Ol.' i. 102 *βασιληΐδα τιμήν*. Thus *Ἀλαλκομενηΐ-ς* 'the protecting,' an epithet of Athene, is simply the feminine to the masc. *Ἀλαλκομενεύ-ς*, a word which is quoted in 'E. M.' as an epithet of Zeus. Masculines in *-εύ-ς* as 'paraschematisms' from participial forms [i.e. formed from them by a change of inflexion], were discussed 'Ztschr.' iii. 79 and above p. 611. Cp. *Δαμναμενεύ-ς* (Apoll. Rhod. i. 1131), *Ἰδομενεύ-ς*. In forms like *βασιλ-ί-ς*, *Αἰολ-ί-ς*,

[1] Valuable collections as to the varying *δ* are to be found, not only in Kühner ('Ausf. Gr.' i. 329), but also in Bredow 'De dial. Herodotea' p. 268, and especially in Rzach 'Der Dialekt des Hesiodos' p. 405 and 'Grammatische Studien zu Apollonios Rhodios' (Vienna 1878) p. 78 f. To the last scholar I owe some of the more detailed information here given.

[2] The difficulties, which stand in the way of the view propounded by Benfey, that these words denote properly the wife, so that *Πριαμίδ-η-ς* means 'son of Priam's wife,' are stated by Pott ii². 888.

Μεγαρ-ί-ς we must assume the loss of the *ε*, as in *σπέσσι* for *σπέεσσι*. Cp. Lobeck 'Prolegg.' 468 ff. Fritsch 'Stud.' vi. 98, 114.

These widely extended personal feminines are followed by a large number of common and abstract nouns, especially diminutives, like *λῆϊ-ς* beside *λεί-α*, *θυρ-ί-ς* (cp. Schwabe 'De demin.' p. 54), which perhaps ought simply to be placed with the patronymics, so that the little door was denoted, so to speak, as 'doorish,' just as the daughter of Aeolus was described as 'Aeolish;' and also names of implements like 642
γραφ-ί-ς 'stile,' *σφαγ-ί-ς* 'sword,' which Bopp iii². 382 compared with Skt. words like *k̔hid-í-s* 'axe' (rt. *k̔hid* 'split'); while derived abstract words like *Ἀθαμαντ-ί-ς*, *Δωρί-ς* at any rate to a large extent can be explained simply from the ellipse of a substantive (*φυλή*, *γῆ*). Primitive abstracts like *ἐλπ-ί-ς* have their analogues in Sanskrit, as *ājí-s* 'race' (Lat. *amb-āg-ē-s*), *lḗp-i-s* beside *lip-ī* 'writing,' and may be explained from the common tendency of language to use the feminine to express the abstract.

β. Stems in *-αδ*.

The parallelism of the stems in *-αδ*, nom. *ά-ς*, with those in *-ιδ*, nom. *ί-ς* is so great, that the two classes are generally treated together, most thoroughly by Lobeck 'Prolegg.' 439 ff. Like the stems in *-ιδ*, those in *-αδ* are used as feminine patronymics: *Βορεαδ* like *Πριαμιδ*, as other feminine proper names or adjectives: *μοιχαδ*, *Λημνιαδ*, like *θεωριδ*, *Λεσβιδ*, as names of countries, and abstract words: *Ἑλλαδ*, *ἱππαδ* like *Αἰολιδ*. It is clear that the stems in *-αδ* are to those in *-ιδ* precisely as the verbs in *-αζω* are to those in *-ιζω*; but we can also say, as derived adjectives in *-αιο-ς*, e.g. *ἀγορα-ῖο-ς*, are to those in *-ιο-ς*, e.g. *ἑσπέρ-ιο-ς*. The *α* must here be regarded by us as the final vowel of the noun-stem, and it specially represents also the *ο* of the masculine and neuter stems: *χερσα-ῖο-ς* (*χερσο*) by the side of *ποτάμ-ιο-ς*, *γυμνά-ζω* (*γυμνο*) by the side of *πολεμ-ίζω*, just as in the derived adjectives in *-ακο-ς*, e.g. *Κορινθια-κό-ς*[1], the *α* corresponds to the *ο* of *Κορίνθιο-ς*, 643

[1] A peculiarity of the Greek language in the formation of stems, which has not yet received attention, and still in face of the investigations into the history of the vowel-system, which are now pursued

for the national names in *-ιο-ς*, as is well known, underlie all these words, as a preliminary stage, so that e.g. *Πελοποννησιακὸ-ς πόλεμος* means properly, not the Peloponnesian war, which would be the war waged in the Peloponnesus, but the war of the Peloponnesians. We are therefore justified in regarding the *δ* of the suffix *αδ* as parallel with the *δ* of *ιδ*; and therefore, if we were right in referring *ιδ* to *ij*, in the same way we may refer *αδ* to *aj*, and hence—as the phonetic relation becomes clearer before vowels—as *ιδ-ες* went back to *ij-ες*, so does *αδ-ες* go back to *aj-ες*. With regard to the explanation of this *j*, it is simple enough in the case of the feminine proper names and the adjectives corresponding to them. The *j* is, as I conjecture, nothing but the feminine *ī*, so often mentioned, only here it did not, as with the stems in *-ιδ*, extrude the final vowel of the stem, but it united it with itself. There was the greatest inducement so to preserve it in the case of the masculine stems in *α*, e.g. in *Βορέα-ς*, *χαμαιεύνη-ς* (st. *χαμαιευνα*). Especially with patronymics, the preservation of this *α* was demanded, if only for the sake of clearness. Thus e.g. in the gen. **Βορεα-j-ος* was formed. But

with so much vigour, well deserves attention, is the aversion to *ο* in the middle syllables of nominal stems. The favourite vowels here are *α* and *ι*: *ὄργ-ανο-ν*, *φύρμ-ακο-ν*, *ποτ-αμό-ς*, *βλέφ-αρο-ν*, *αἴθ-αλο-ς*, *πιθ-ανό-ς*, *στιβ-αρό-ς*—*λογ-ικό-ς*, *μάχ-ιμο-ς*, *φήγ-ινο-ς*. It is only before *ρ* and *λ* that *ε* too appears in the like place: *βλαβ-ερό-ς*, *ἴκ-ελο-ς*. We find *ο* almost solely in the not very common diminutive suffix *-ολα*, nom. *-ολη-ς*, like *φαιν-όλη-ς*, *ὀζ-όλη-ς*. In the case of formations, which we are justified in regarding as secondary, either *α*, especially after *ι*: *ζωδια-κό-ς*, *σπουδεια-κό-ς*, *Ταλθυβιά-δη-ς*, but also e.g. in *νεα-ρό-ς* or *ι*, e.g. *χρονι-κό-ς*, *ξυλινό-ς*, *πύρι-μο-ς* replaces the final *ο* of the primary nominal stem. The stems in *-α* follow entirely in this respect those in *-ο*: *μανια-κό-ς*, *παλαιστρι-κό-ς*, *ἀοίδι-μο-ς*, just as in the preference for *ο* in the 'seam' of the compounds. *α* and *ι* are privileged vowels of derivation, *ο* is the almost exclusively privileged vowel of the compounds. From these points of view *τρίτα-το-ς* and the superlative suffix *-ατο* generally, as a repeated *-το*, would be by no means so unintelligible as it seems e.g. to Ascoli ('Stud.' ix. 346). Cp. *ὄρχα-το-ς* beside *ὄρχο-ς*, *ὀρφα-νό-ς* beside *ὀρφό-ς*. Whether the *α* in such places is of early date (cp. *ἄγω*), or is one which may have originated from *ο*, others may decide. I believe that in spite of all acuteness many an a^x will still remain.

how do we get from this to the nom. *Βορεά-ς*? I believe that we may do so most easily in the following way. The full nominative must naturally have been **Βορεα-ι-ς*. But after a *δ* had been developed before the *j* in the other cases: *Βορεά-δ-ος*, *Βορεα-δ-ι*, *Βορεα-δ-ες*, this found its way, I believe, into the nominative also, where it must have been very welcome as a link between the two vowels. We should thus arrive at the form *Βορεα-δι-ς*. There are indeed other instances, in which we detect a similar, though to some extent, converse heteroclisy, as e.g. *Σωκράτη-ν* in the accusative is formed according to the false analogy of the nominative. In the dat. plur. also we must probably presuppose *Βορεα-δι-σι*, and here we have an analogy still more striking. The *ε* of *πρέσβεϝ-ος*, *ἡδέϝ-ος*, although originally only justified before vocalic suffixes as an element of the resolved diphthong *ευ*, and in no case originally appropriated to the dat. plur. (cp. Skt. *svādu-shu*), made its way into this case also, in consequence of the tendency, which runs through all languages, called by Brugman 'compulsion of system,' to assimilate the inflexions of the same stem: *πρέσβε-σι*, *ἡδέ-σι*. But even **Βορεα-δι-ς* did not hold its own. When the *j* of the remaining cases became a *δ*, the *ι* in the nom. was no longer retained. It was the more easily suppressed here, that there were other cases of the loss of an *ι* after dental consonants. 644
In the face of five languages, which point to the stem *nak-ti*, no one will doubt that it was only in later times that *νυκ-τι* (No. 94) became *νυκτ*, and that therefore the nom. *νύξ* is shortened from *νυκ-τι-ς*, just as much as *nox* from *noc-ti-s*. We hardly need the further proof afforded by the actual occurrence of the stem *νυκ-τι* in *νυκτι-λαμ-πής*, *νυκτί-πλαγκτο-ς*. The case is the same with Hesiod's form *δώ-ς* (*Ἔργα* 356), which is absolutely the same with Lat. *dō-s*, and is therefore shortened from **δῶ-τι-ς*; and with the suffix *-τητ-* = Lat. *tāt*, the shortening of which from *-tāti* is established by Lat. *civi-tāti-um* [Roby § 445] with the Skt. suffix *-tāti* (Leo Meyer ii. 532). *Βορεά-ς* has therefore been shortened from **Βορεαδις* through the intermediate form **Βορεαδ-ς*. By means of such a view we can also understand the surprising shortness of the *α* as compared with *Βορέᾱ-ς*. In the

patronymic the *α* was for a time long by position before two consonants **Βορεαδj-ος *Βορεαδ-ς*. Here the *α* was shortened as in the Dor. acc. *χώρᾰ-ας* from *χωρᾱ-νς*, as in the Ion. *ἔσσων* (*ἐσσόω*) for *ἥσσων*, as in *δικάζω*, *ἐδίκᾰσα* from *ἐδίκασσα* by the side of *δικᾱ*, or as in the Aeol. 3 plur. *ἐφίλεν* and the genitive of the participle *φιλέντ-ος*, in both cases as a result of *ντ*. For those who take *δ* as a derivative consonant, the shortness of the vowel before *δ* in part is in the highest degree inconvenient. Neither *Κρονί-δη-ς* agrees, as Bréal 'Mém.' i. 207 thinks, with *τεχνῖ-της*, nor *Αἰνειᾰ-δης* with *Τεγεᾰ-τη-ς*.

It will not be necessary for our purpose to enter more minutely into the other stems in *-αδ*. But we may just remark that the greater number of them easily lend themselves to our view. By far the majority of these stems consists of feminines, which have by their side masculines in *-ο*: *γυμνά-ς* and *γυμνό-ς*, *λευκά-ς* and *λευκό-ς*. These are related to *Βορεά-ς* as *ἑτοιμά-ζω* to *δικά-ζω*, i.e. the vowel *α* has been in the one case retained in both forms, in the other only in the derived form. *γυμνά-ς* is therefore immediately connected with *γυμνά-ζ-ο-μαι*. Hence we may here assume a **γυμνα-δι-ς* with just the same right as above a **Βορεα-δι-ς*. We need not explain in detail how such stems are used in very different ways, partly through the ellipse of a substantive (*ὁλκά-ς*, i.e. *ναῦς*, *Ὀλυμπιά-ς*, i.e. *ἑορτή*), partly through that use of the feminine in an abstract sense, which is so common with the Greeks (*ἁμαρ-τά-ς* 'fault,' *μονά-ς* 'unity,' cp. *ἡ θέρμη* 'warmth'). This is the less necessary that here, just as in the diminutival use of the suffix, we find the fullest analogy with the nouns in *-ιδ*, the origin of which presented less difficulties. There is only one class which will not lend itself to our theory, the adjectives of both genders like *νομά-ς*, *μιγά-ς*, *δρομά-ς*, *λογά-ς*, *φυγά-ς*. But there are hardly a dozen of these, and
645 among them it is only the five mentioned, which are in common use, and these not before Herodotus. Many occur, either altogether or as masculines, only in isolated examples in the poets. Whether we are here to assume an illegitimate transference to the masculine gender, or whether we are

to have recourse to the analogy of the few masculines in *-ι* like *στρόφι-ς*, *τρόχι-ς*, need not be decided. In Zend *-i* is the suffix of masculine patronymics. In no case can they be any objection to our analysis. Leo Meyer's theory (ii. 103), that the suffix *-αδ* is identical with the participial suffix *-ant*, Gk. *-οντ*, is not probable for any class of these words, and leaves quite unexplained the almost exclusive use of the suffix as feminine, which he himself mentions as 'remarkable.'

γ. Patronymics in *-δα*.

The most common kind of patronymics, those in *-δα* nom. *-δη-ς*, are evidently connected with two formations discussed above p. 634 ff., i. e. the Aeolic patronymics in *α-διο-ς* like *'Υρρά-διο-ς* and names of kinship in *-ι-δεο-ς*. Hence it hardly needs further proof that we have before us in this *δ* also only the representative of *j*. We trace back *Βορεά-δη-ς* to **Βορεα-jη-ς*, *Κρονί-δη-ς* to **Κρονι-jη-ς*. The difference from the former two forms lies in two points. The group *δj*, which we presuppose, has in the former instances retained the *j* in the form of a vowel, in the latter it has rejected it, and while in the former *o* took the place of the old *α*, here the stronger *α* appears, which the Graeco-Italic language retained so peculiarly, even in the case of masculines, as a fuller vowel, by the side of the more usual *o*, *εὐρύο α*, *agricola*. For there can hardly have been an original distinction between this Graeco-Italic masculine *α* and the more usual *o*. That as a fact a *jā-s* or *iā-s* did find its place by the side of *jα-s* or *iα-s* is shown by the Greek nouns in *-ιᾱ-ς*, root-words like *ταμ-ία-ς*, *Φειδ-ία-ς*, derivatives like *κυματ-ία-ς*, *ἐτησ-ία-ς*[1] (*ἄνεμος*), *ὠχρ-ία-ς*, *Κριτ-ία-ς*, *Τειρεσ-ία-ς* (Lobeck 'Proleg.' 489). All these nouns are distinguished from for-

[1] The irregular accent of the gen. plur. *ἐτησίων* is certainly to be explained from a confusion of the stems *ἐτησιο* and *ἐτησια*, as is shown by Gottfr. Stier 'Ztschr. f. Gymnasialwesen' 1869 p. 117. — For the close affinity of the masculine *α-* with the *o*-stems we have also poetic forms like *ἀτίτη-ς* (Aesch. 'Ag.' 72, 'Eumen.' 256), *ἰοδέτα-ς*, *κισσοδέτα-ς* (Pind. 'Fr.' 45 Boeckh), *λευκολόφα-ς* (Eurip. 'Phoen.' 118), *χρυσοκόμη-ς*, (Hesiod. 'Theog.' 947 etc.), *μηλονόμα-ς* (Eur. 'Alc.' 588). Cp. Valckenaer ad Eurip. 'Phoen.' v. 120. The *α*-form is generally distinguished from the *o*-form by a delicate shade of meaning.

646 mations like *κλόπ-ιο-ς*, *ξέν-ιο-ς*, *οὐράν-ιο-ς*, *ἀ-πειρέσ-ιο-ς* by a more marked, i. e. a more substantival and name-like meaning. This is well suited for patronymics. We may see that the nouns in *-αδα* are by no means exclusively used in this latter signification, from words like *ἁλιάδαι* 'seamen' (Soph.), *ἡμερί-δη-ς* 'mild' (of wine) — similarly *ἀνθ-οσμία-ς*, — *Γυγάδα-ς*, as the treasure of Gyges at Delphi was called (Herod. i. 14), and from comic formations like *ζοφο-δορπίδα-ς* (Alcaeus) and *σαλπιγγο-λογχ-υπην-άδαι* (Aristoph.). As we trace the *δ* of the suffix *-δα* back to *j*, this establishes also a relation of affinity with the second patronymic formation, the so-called *τύπος Ἰωνικός* (Bekk. 'Anecd.' 850). *Κρον-ίων* is only the expansion of *Κρόν-ιος* by the likewise emphasizing suffix *-ων* (*-ον*), and is related to it as *οὐραν-ί-ων-ες* to *οὐράν-ιο-ι*, as *αὐλ-ών* to *αὐλό-ς*, *κοιν-ών* to *κοι-νό-ς*, *κύφ-ων* to *κυφό-ς*, *τρή-ρων* to *τρηρό-ς* and other forms discussed in the same sense by Osthoff 'Forsch.' ii. 49 ff. in connexion with the German so-called weak declension. With regard to the addition of the suffix *-δα*, this, like the feminine suffix *δ*, is added immediately on to stems in *α*:

Βορέᾱ-ς Βορεᾰ-δη-ς fem. [**Βορεα-δι-ς*] *Βορεᾰ-ς*,

but to stems in *-ιο* in such a way that instead of the *ο* the old *α* appears:

Τελαμώνιο-ς Τελαμωνιά-δη-ς [**Τελαμωνια-δι-ς*] *Τελαμωνιᾰ-ς*.

The termination *αδη-ς* is here parallel to the Aeol. *αδιο-ς* and *αιο-ς*, the Skt. *ēja-s*, i.e. *aija-s*, the Lat. *ēju-s* from **aijo-s* (p. 634). To consonantal stems *-δα* is attached by means of the vowel *ι*: *Μεμνον-ί-δη-ς*, fem. *Μεμνον-ί-ς*, and the same *ι* as a rule takes the place of *ο*: *Κρον-ί-δη-ς*. The latter kind of formations must be traced back to *-ĭja-s* or *-ŭja-s* and corresponds to Sanskrit forms like *svasr-ŭja-s* 'sister's son.' The hexameter metre, under the influence of which patronymics were formed in the epos, required and allowed many abbreviations and expansions, with regard to which it is sufficient here to refer to the careful essay of Angermann 'De patronymicorum Graecorum formatione' 'Stud.' i. 1. We need only mention further the Boeotian forms like *Ἐπαμεινών-δα-ς*, *Παγών-δα-ς*. The loss of the accented *ι* would be, if not quite inconceivable, at any rate surprising. But if we start from *Ἐπαμεινων-*

ja-ς, the form becomes more intelligible. In this case, I suppose, no *ι* had ever been developed.

δ. Names of young animals in *-δεν*.

The connexion of the words in *-δεν* (nom. *-δεν-ς*), denoting young animals, with patronymics on the one hand, and with words of kinship in *-ιδεν* on the other, has often been recognized, especially by Pott 'Personennamen' 573 and ii². 883 [1]. 647 This scholar reminds us of the Boeotian names in *-οττο-ς* fem. *-οττί-ς* (Keil 'Sylloge Inscr. Boeot.' p. 77), e.g. *Βίοττο-ς*, *Φίλοττο-ς* after the analogy of *νεοττό-ς* (i.e. *νεο-κ-jo-ς*, cp. *νέᾱξ* and *novi-ciu-s*), and of the Modern Greek names in *-πουλο-ς* (cp. Lat. *pullu-s* and *ἀετό-πουλο-ν* = OGk. *ἀετιδεύς*), which were originally patronymics. We may regard forms like *ἀετ-ι-δεύ-ς*, *λαγ-ι-δεύ-ς*, *ἀλωπεκ-ι-δεύ-ς*, *γαλ-ι-δεύ-ς*, *λεοντ-ι-δεύ-ς* as expansions of generic adjectives with the addition of the individualizing suffix *-εν*. The little eagle was thus, strictly speaking, denoted by language as the 'eaglish' (cp. p. 641). This formation is related to the patronymics in *-δα* as the proper name *Ναυτ-εύ-ς* is to *ναύτη-ς*, and as the rarer forms *Σιμωνιδεύς*, *Αἰακιδεύς* (Göttling 'Accentlehre' 169) to the more usual *Σιμωνίδης*, *Αἰακίδης*. We may notice also *ἐχι-εύ-ς* 'young viper' from *ἔχι-ς* (Nicander 'Ther.' 133). *Ἐρωτιδεύ-ς* 'a young Cupid' ['Anacreont.'

[1] Pott indeed explains these forms in a manner entirely different from mine, i.e. (ii². 883) from composition with the rt. *ϝιδ*. It will be allowed that the meaning of 'appearance' (*εἴδομαι*, *εἴδωλον*) and further that of 'resemblance' might develope from this. But the great objections, drawn from the form of the word, will not fail to be noticed by everybody, as also the complete loss of the *ϝ*, which in Homer and elsewhere is very firmly attached to this root, and the difficulty of getting direct from the root to these noun-formations, which would rather require the intermediate stage of some noun like *εἶδος*, for *ἀετ-ιδεύς* surely cannot have meant the 'eagle-seer,' *Κρον-ίδη-ς* the 'Kronos-seer,' and how are we to explain *Αἰνειά-δη-ς*? And the assumption that the suffix *-ιαδ* has arisen from an *α* inserted 'for the sake of euphony' (p. 898) will satisfy no one. Finally the verbs with *-ιζω* in the present, which are also placed here, would, according to Pott's explanation, contradict the fundamental law of Greek composition, that a verbal stem is never directly used to form a compound, not **οἰκο-δεμ-ω*, but *οἰκο-δομ-έ-ω*.

26] was jestingly formed after this analogy. On the other hand *υἱιδεύ-ς* is equivalent to *υἱιδοῦς*. *Βαυκιδεύ-ς* is found 'C. I.' No. 106. *Μαιαδεῦ* in Hipponax 'Fr.' 10 as an appellation of Hermes may be a form intentionally made to resemble the names of beasts, for this well suits the tone of the fragment, which is very extravagant. Both forms meet also in the name of the old Attic tribe *'Αργαδῆς* (nom. s. *'Αργαδεύ-ς*), the Eponymus of which was named *'Αργάδη-ς* (Herod. v. 66). We might suppose a patronymic form here too, i. e. a *nomen agentis* **ἀργό-ς* (cp. *συνεργό-ς*), whence the *'Αργαδεῖς* would have got their name, as 'the sons of the labourers,' 'of the field labourers,' like the *Παμβωτάδαι* as 'the sons of the common herdsmen.' But it is certainly simpler to regard *'Αργαδῆς* as a *nomen agentis* from *ἐργάζομαι*, in which, as in *κομι-δ-ή*, *δ* takes the place of *j*. And perhaps we ought to regard in the same way the *Ζεὺς Στοιχαδεύς* (as well as *Στοιχεύς*)
648 of the Sicyonians (Lobeck 'Prolegg.' 351), so named '*διότι κατὰ φυλὰς ἑαυτοὺς ἔταξαν καὶ ἠρίθμησαν.*' *στοιχά-ς* is 'separated,' *στοιχίζειν* 'divide,' 'separate.'

ε. The adverbs in *-δα*, *-δον*, *-δην*, *-δις*.

These adverbs, which are tolerably numerous, especially in the language of Homer, have been thoroughly discussed by Leo Meyer 'Ztschr.' vi. 287 ff. They are there traced back to the Skt. suffix *-tva*, which presents a certain similarity, especially in the employment of the instrumental *-tvā* to form gerunds, e. g. *ga-tvā́* (rt. *gam*), compared with *βάδην*. But the phonetic change from *tv* to *δ* cannot be satisfactorily established. Subsequently Leo Meyer connected all adverbial forms in *δ* with the Indian adjectives in *-tja* ('Or. u. Occ.' ii. 603, 'Vergl. Gr.' ii. 385), but there is nothing convincing in this, from the point of view either of form, for there is no reason whatever for the softening of *τ* into *δ*, or of meaning, for in Sanskrit this is that of necessity, which is foreign to our words. The words corresponding to these Indian adjectives are rather Greek adjectives like *ἄξιο-ς*, *ὑπόψιο-ς*, *γνήσιο-ς*, Latin ones like *anxiu-s*. And the identity of the adverbs in *-διην* or *-δην* with the Latin adverbs in *-tim*, which he asserts, is the less admissible, in that we have actually in Greek itself adverbs in *-τί* like *ἐγερ-τί*, *ὀνομασ-τί*, *δωρισ-τί*, *μονω-τί*

(cp. *singillatim*), which evidently differ from the Latin adverbs only in the case-suffix. Pott ii². 882 has treated these adverbs in an entirely different manner, on some points agreeing with my view. Since then Frohwein in the 'Studien' i. 1, 103 ff. has most diligently collected all the materials. We confine ourselves to demonstrated phonetic change, if we maintain for all these formations the origination of the *δ* from *j*, and their affinity with another Sanskrit gerundial form, that in *-ja*, e. g. *ā-dā-ja* (from the rt. *dā* with pref. *ā*). Windisch has called my attention to the equivalent forms in *-ja-m* which are certainly akin: e. g. *dā-ja-m* = *dattvā*, *sthā-ja-m*=*sthitvā* (Bopp 'Sanskrit gr.' p. 570). The most transparent forms are the Homeric adverbs in *-διην*: *σχε-δίην* (*τύψον δὲ σχεδίην E* 830) *αὐτο-σχεδίην* (*πλῆξ' αὐτοσχεδίην M* 192), *ἀμφα-δίην* (*εὔχεσθε H* 196). These forms are unmistakably feminine accusatives from the adjectives in *-διο*, like *σχέ-διο-ς*, *ἀμ-φά-διο-ς*, *ἀπο-σπά-διο-ς*, *ἐκ-τά-διο-ς*, *στά-διο-ς*, *φθί-διο-ς*. A corresponding dative is *παν-συ-δίῃ*. We may still regard them as real adjectives, and explain them from the ellipsis of the accusative of cognate meaning with the verb: *τύψον σχεδίην*, i. e. *πληγήν*, like *παῖσον διπλῆν* (Soph. 'El.' 1415). But certainly in forms like these, as Lobeck 'Paralipp.' p. 363 sq. and Jacob Grimm ('D. Gr.' iii. 239) show, the limits 649
between adjective and adverb fluctuate: we have only to remember *ἄντην*, *ἀπριάτην*, *ἀντιβίην*, Lat. *bifariam*, *perperam* and the like. An old acc. plur. with adverbial force, based upon the same suffix, is found in *καταλοφάδια* (*κ* 169) for which Bekker writes *καταλοφάδεια*. The word, derived from *λόφο-ς*, has its complete analogue in *κατ-ωμά-διο-ς* (*δίσκου κατωμαδίοιο Ψ* 431). — In one adverb it seems that *δι* is replaced by the *ζ* which so often corresponds to it. *βύ-ζην* 'pressed close' (*βυ-νέ-ω*) with *βυ-ζόν* (Hesych. *πυκνόν*) is explained by Buttmann 'A. Gr.' ii. 452, having regard to *βέ-βυσ-μαι* and the like, as for *βυσ-δην* (so also Pott ii². 812). But the origination of *ζ* from *σδ* is, as we saw on p. 633, an arbitrary assumption. I therefore explain *βύ-ζην* as for *βυ-δjην*. — We may notice also the Homeric *ἅ-δην*, or as Bekker writes it, after Aristarchus, *ἄ-δην* 'sufficient,' 'enough.' The root is that of the Lat. *sa-tur*, *sa-tis*[1], and this is in favour

of the rough breathing. But the variation in the quantity — *E* 203 ἔδμεναι ἄδην (cp. ἀδηκότες [ἀδήσειεν *α* 134]) but elsewhere with a short *α* — is explained perhaps by supposing that the *j* originally occurring after *δ* sometimes made position, sometimes was lost without leaving a trace. Hence came the spelling with *δδ* where the syllable was long, which has eminent advocates. The variation between [1]ἄδην, [1]ἄδην, and ἄδδην reminds us of that between κᾰλό-ς, κᾱλό-ς and καλλίων, which is similarly based (cp. No. 31) upon a group of letters containing *j*. Another explanation is, however, possible. The Homeric ἄδος or ἄδος 'satiety' (whence ἀδδηκότες), which is inseparable from ἄμεναι, ἄδην, seems to go back to a rt. *ἀδ* expanded by a *d*. So ἄδ-δην might be a product of this expanded root and the adverbial ending -δην.

We come now to the far more common suffixes -δον, -δην, -δα, of which the first is naturally according to its termination the neuter singular, the second the feminine singular, the third the neuter plural. Here belong therefore forms like σχε-δόν, properly 'tenendo,' hence 'near,' ἀνα-φαν-δόν, ἐπι-στα-δόν, ῥυ-δόν,—βά-δην, ἐπι-λίγ-δην (κλῆτο *P* 559), μίγ-δην, ὀνομα-κλή-δην, ἀέρ-δην contracted ἄρδην, ὄβ-δην [but cp. Steph. 'Thes.' s. voc.], γράβ-βην (Lob. 'Elem.' i. 332 adnot.)—κρύβ-δα, μίγ-δα, ἀμ-φα-δά, αὐτο-σχε-δά. — It is worth while noticing ῥύ-β-δην 'richly' (Hipponax 'Fr.' 35 according to Bergk's probable reading), which is well established by the metre here, and by later evidence (Steph. 'Thes.' s. v.): it is quite equivalent in meaning to ῥυδόν and ῥύδην, and can hardly be explained except as for ῥυϝ-ιην, i. e. by supposing that before the vowel *ι* a *ϝ* developed itself from *υ* in just the same way as that mentioned on p. 570, as in the Skt. *ba-bhū́-v-a*. As such a semi-vowel is
650 developed only before a vowel, this *β* hardened from *ϝ* (cp. p. 587) also bears witness to the existence of an *ι* assumed by us, as the antecedent of the *δ*. It is probable that we must explain in this way the relation of the equivalent words ῥοῖβδο-ς and ῥοῖζο-ς 'noise.' We may trace back the former to *ῥοιϝ-jo-ς (i. e. ῥοϝ-ιο-ς with epenthesis), the latter to *ῥοι-jo-ς. *ῥοιϝ-jo-ς had to become ῥοῖβδο-ς, and *ῥοι-δjo-ς,

[1] [The initial consonant is proved by Λ 88, *α* 134, *ε* 290, *μ* 281].

had to become *ῥοῖζο-ς*. Ebel 'Ztschr.' xiv. 39 also arrives at this explanation, and it enjoys the especial approval of Ascoli ('Krit. Stud.' 376). Perhaps the root is the same as in the equivalent Lat. *rū-mor*, the other affinities of which we learnt to recognize on No. 523. — Just as in the examples hitherto discussed the suffix is added to verbal stems, as in the Indian gerunds in *-ja*, so in numerous other instances it is added to noun-stems, as in *κατωμα-δόν*, *ἰλα-δόν*, *ὀμα-δόν*, *κλαγγη-δόν*—*καναχη-δά*, a use which will surprise us the less, considering the origin of the suffix which we maintain, because we have often recognized the forms *-διο*, *-ιο*, Skt. *-ja* in a similar use. Evidently words like *ἐπι-τροχά-δην*, *μετα-δρομά-δην*, *ἐπι-στροφά-δην*, just like adjectives in *-αιο-ς* (*τρόχαιος*) go back as to their formation to nouns like *ἐπί-τροχο-ς*, etc., although it is not always possible to prove the existence of these. *ἐπιτροχάδην ἀγόρευεν* (*Γ* 213) means therefore: 'he spoke in the manner of an *ἐπίτροχος*,' of one hurrying over. The *η* of *κλαγγηδόν* is to the *α* of *ἰλαδόν* as *ταφή-ϊο-ς* is to *πετρα-ῖο-ς*.— The forms in *-δις* are the most difficult to explain. It seems that *ἀμοιβηδίς*[1] is the only one occurring in Homer [*Σ* 506, *σ* 310]; in the Alexandrian writers we find *ἑνωπαδίς*, *αἰφνηδίς* and others; the grammarians mention *κρυφάδις*, *μιγάδις* (cp. Lobeck 'Paralipp.' 154). It is most natural to compare *μόγις* and *μόλις*, and also the multiplicatives in *-άκις*. May we not suppose, as others have already conjectured, that we have here plural locatives, in which the diphthong *οι* has been weakened into *ι*, just as in the singular locatives in *-ι*? It is true that in the latter case we have the intermediate step *-ει* often retained, so that *ἀμαχεί* forms a link between *ἀμισθ-ί* and *οἴκοι*; and besides, we should here have to assume the shortening of the *ι* as well. — We have formations of a peculiar kind in the late forms *κρυφανδόν· κρυφίως* (Hesych.), *στοχανδόν* 'conjectando' (Theognost.), and in the adverbs in *-ίνδην* like *ἀριστίνδην*, *πλουτίνδην* with the adverbs in *-ινδα* relating to games, like *ἐφετίνδα*, *ὀστρακίνδα* (Schmidt 'Ztschr. f. Sprachw.' i.

[1] *ἄλλυ-δις* and *ἄμυ-δις*, like *οἴκα-δις*=*οἴκαδε* and *χαμά-δις* (cp. Ahr. 'Dor.' 373) belong to the local adverbs in *-δε* (No. 263 b), the *δ* of which must be regarded as of old date.

651 p. 264 ff.). Both apparently point to verbs in *-αινω, -ινω*. It will of course be understood, as I repeat in conclusion, that my view does not go so far as to maintain that in every single case the *δ* has passed through the developement from *j* or *i*, which we assumed for the genesis of the type. — As regards the relation of the suffixes *-δο-ν, -δη-ν, -δα* to *-διο*, etc., I should not like to maintain now with the same positiveness as before, that the latter forms are the source of the former, and hence that a *j* has been lost after every *δ*. Corssen, who discusses these formations on p. 366—unfortunately with very slight regard to the different stages in the history of the Greek language—may possibly be right in holding, in accordance with the doctrine of the old grammarians (Lobeck 'Prolegg.' 351, 'Paralipp.' 156), that the adverbs in *-δο-ν, -δα*, etc. are the more primitive, and those in *-δια, -διην*, etc. are derived from them. It is possible that *σχε-δίη-ν* may have come, not indeed from the adverb *σχε-δόν* itself, but perhaps from its stem *σχε-δο*, which survives only in the adverbial accusative form, and *κατ-ωμά-διο-ς* from *κατ-ωμα-δο* like *ἐλευθέρ-ιο-ς* from *ἐλευθερο*. Thus we should understand why the *ι* is as firmly attached in the one formation as it is foreign to the other. But there are certainly forms like the Homeric *κρυπτά-διο-ς*, in the case of which the by-form without *ι* is wanting, and I think I have established the possibility of the sequence of sounds *-ja, -διο* for other formations like *διχθά-διο-ς* on p. 634. But my derivation of the *δ* by no means falls, as Corssen thought, with this changed succession. If *σχε-δό-ν* is to be regarded as the antecedent to *σχέ-διο-ς*, then here *δ* alone is the representative of *j*, a phenomenon which has frequently met us. At the close of our investigation I shall endeavour to make this process still more clear in its phonetic aspect. We should have the series **σχε-jo, σχε-δο, σχε-δ-ιο*.

ζ. *δ* for *j* in particular verbal forms.

Instead of the Homeric form of the present *ἀμέρδ-ω* 'deprive,' Pindar has *ἀμείρ-ω*. It is natural to derive both forms from a third underlying both, *ἀμερ-j-ω*. The root is *μερ* (No. 467) 'divide,' 'apportion,' to which *ἀμέρδ-ω* is related as *ἀτίζω, ἀτίω* to the rt. *τι* 'honour.' We must give *expertem facere* as the fundamental meaning, and must certainly assign another

root, i. e. μαρ 'shine' (cp. p. 567) for the second meaning of ἀμέρδειν 'blind;' so that the verb, when it has this meaning, is to be compared with ἀμαυροῦν. Lobeck's attempt ('Rhemat.' 74) to connect the two meanings is certainly unsuccessful.

Before the endings -ατ*αι* and -ατ*ο* of the perfect and pluperfect middle we sometimes find the sound δ. The particular forms have been quoted by me in the 'Gk. Verb' p. 67[1]. In 652
ἐῤῥάδαται (υ 354, ἐῤῥάδατο Μ 431), as in ἐρηρέδατ' (pres. ἐρείδω) the δ belongs to the root. Under No. 253 we saw that the root was ἀρδ, by metathesis ῥαδ. The forms which remain are ἀγωνίδαται (Herod. ix. 26), κεχωρίδαται (i. 140), ἐσκευάδαται (iv. 58), παρεσκευάδατο (iii. 150), διακεκρίδαται, which is not found before Dio Cassius (lii. 5), and the Homeric forms ἀκηχέδατ' (Ρ 637), ἐληλέδατ' (η 86). The first four forms correspond to present stems in ζ just as ὄδωδα does to the present ὄζω, or ἕδος by the side of ἕζετο. If, as we assume, ζ may be divided into the elements δ and *z* (*odzo*, *agonidzomai*), we can understand how forms of the latter kind follow the lead of those of the former kind, i. e. how the second element, that which represents a *j*, came to be regarded universally as a sign of the present, and the verbal stem as ending with a δ. The older fashion, which Dorism retained, was discussed on p. 632. It is in these forms and some few noun-forms, which are to be discussed immediately, that the reference of derived verbs with -ιζω, -αζω in the present, as well as primitive verbs (ὄζω, σχίζω), in practical Greek grammar, to a verbal stem in δ, finds its justification. The isolated Homeric ἀκηχέδατ', on the other hand, answers to the equally isolated ἀκαχείατο (Μ 179, I. Bekker ἀκαχήατο) and may serve as a finger-post to point out to us the relation of the verbs in -ζω to those in -εω, which we touched upon above (p. 630). The ι of -ιζω has come from ε, like that of ἵζω (rt. ἑδ), χθιζός (χθές). We may deduce a form ἀκαχε-δ-*j*ω with the same justice as ἑδ-*j*ω. Now in ἀκηχέδατ' by the side of ἀκαχίζω we actually find, I believe, this hypothetical ε, and similarly in ἀκηχεδ-όν-ες λύπαι (Hesych.), but with ἀκαχείατο, if the traditional authority in its favour is cor-

[1] ἀπεσπάδατο, quoted by Lobeck ad 'Ajac.' 403, is not certain. The MS. of Hesych. has ἀπεσπάδατο· ἀπέστησεν. M. Schmidt marks the gloss as suspicious, if only because the alphabetical sequence is not observed.

rect, *ἀκηχέδατ'* is connected by an intermediate *ἀκαχεj-ατο.*— The case of *ἐληλέδατ'* is similar. Bekker, with good authorities, (cp. Schol. E. M. on *η* 86, H. Q. on *ν* 4) has restored this form instead of the vulgate *ἐληλάδατ'* in *η* 86. La Roche with M. writes *ἐληλάδατ'*. Buttmann ('A. Gr.' i. 426) and Nauck approved the reading *ἐληλέ-ατ'*, which is less well-established, though of course it would be formed from the st. *ἐλα-* just as *πεπτέ-ατο* from rt. πτα. On the other hand *ἐληλέ-δατ'* goes back to a st. *ἐλαj-*, of which the present would take the form *ἐλά-ω* or **ἐλάζ-ω*, and which is to be recognized also in *ἠλάσ-*
653 *θην*, *ἐλαστός*. Still the *ε* is here surprising beside the *α*, which runs through all other parts. Both forms are discussed in 'Greek Verb' pp. 242, 418.

η. *δ* in nouns, which are connected with verbs in *-ζω* in the present.

The only feminine in *-δη*, which is connected with a derived verb in *-ζω* in the present, is according to Lobeck ('Rhemat.' 261) *κομιδ-ή*. The *δ* is here unmistakably quite parallel to that of *ἀγωνίδαται*. There are also some few words mentioned on p. 647 f.: *Ἀργαδεῖς* (*ἐργάζομαι*), *Στοιχαδεύς* (**στοιχάζω*). Some adjectives in *-δνο-ς* also owe their *δ* to the same source. For as *κεδ-νό-ς* comes from the rt. καδ (No. 284), and *ἀ-ιδ-νό-ς* from the rt. *ϝι*δ (No. 282), so *ἀλαπαδ-νό-ς* 'weak,' comes from the verbal stem of *ἀλαπάζω* 'weaken.' There is the same relation between *ὀλοφυδ-νό-ς* 'lamenting,' and *ὀλοφύζω* 'lament,' though the existence of the latter word can only be proved for a later time; for *ὀλοφυδ-νό-ς* is evidently not directly connected with *ὀλοφύρομαι*; and also between *ὀπιδ-νό-ς* 'dreaded,' in Apollon. Rhod. ii. 292, and the Homeric *ὀπίζομαι* 'fear,' 'dread.'

The nominal stems in *-δον*, e.g. *τηκε-δον*, *ἀλγη-δον* were previously treated of by me at this place, and compared with the Latin stems in *-don* (e.g. *torpēdo*, *libīdo*). As I no longer regard as probable the origination of a *d* from *j* for Latin, which I always conjectured with the greatest reserve, I now omit also the Greek stems. I do not, however, know of any explanation of the suffix *-δον*, which is to any degree attractive.

θ. The group *δν*, to be explained by metathesis.

ἔχιδνα 'adder,' 'viper' was often regarded ('Index Aristot.'

ed. Bonitz s. v.) as the feminine of ἔχι-ς (No. 172), while others thought that the former name denoted a different kind of snake (Aelian 'Hist. An.' x. 9, Lobeck 'Prolegg.' 49). Even in the second case there would be nothing to prevent us from regarding the longer word as in form feminine to ἔχι-ς; for, as Lobeck shows, language often uses differences which originally marked gender to distinguish species. Now we have feminine names in -ινα; λύκα-ινα, θέα-ινα, δέσπο-ινα, which we may compare with the Sanskrit in -nī and -ānī (Lindner 'Nominals.' 152). -ινα arose here by metathesis from -νια, as we see from πότ-νια (Skt. pátnī) by the side of δέσ-πο-ινα (No. 377), and from Aeolic forms like βασίλ-ιννα, Κόρ-ιννα ('maiden'), Φίλ-ιννα ('darling'), Μελίτ-ιννα ('melculum'), Δίκτυ-ννα, an epithet of the huntress Artemis from δίκ-τυ-ς 'net,' which are to be explained by the assimilation of νj to νν. Thus from the stem ἐχι first came *ἐχι-νjα, then with the change of j into δ *ἐχι-νδα, and finally by metathesis 654
ἔχι-δνα. Ascoli ('Krit. Stud.' 377) confirms this explanation, pointing to the shortening of the α, a phenomenon which is abundantly exemplified, especially with an original jα: Κρῆσσα, ὄσσα, ἅμιλλα, Λάκαινα. Metathesis is common, and the transposition of the explosive to the first place especially liked, in the case of nasals (cp. Siegismund 'Stud.' v. 189). Compare Πνύξ with Πυκνός, τμῆσις with τέμνω, and specially σκίδ-να-μαι with scindo, πήγ-νυ-μι with pango. The case is the same with ἀράχιδνα, a word which denotes a plant, which is also called ἄραχος or ἄρακος (No. 494). — We may explain also in this way the Homeric 'Αλοσύδνη, and the name of a Nereid in Callimachus, which is formed in imitation of it, 'Υδατοσύδνη. Lobeck, rejecting other conjectures ('Prolegg.' 234), traces the words back to ὕδναι· ἔγγονοι, preserved in Hesych., and conjectures that they are akin to υἱός. The meaning 'daughter of the sea' suits excellently as a surname of Thetis (Υ 207) and of the mother of the seals, said to be Amphitrite (δ 404 νέποδες καλῆς ἁλοσύδνης). In the same sense the Nereids are called ἁλοσύδναι in Apollon. Rhod. iv. 1599. As ἀλ- with the meaning 'sea' appears in composition as ἀλι-, it seems to me now more probable that ἅλος-υδνη, ὄδατος-υδνη are compounds of cases, or more correctly combinations, like οὐδενός-

ωρο-ς (Θ 178) *Κυνός-ουρα*. The root is that of *υ-ἱό-ς* (No. 605) i.e. cu, Indo-Germ. *su* 'beget.' *ὑ-δνη* is therefore for *συ-νjη* (Indo-Germ. **su-n-jā*) and is the feminine to the Skt. *sūnú-s*, Goth. Lith. *sunu-s* 'son.'

ι. The group *βδ*.

It is plain from our grouping (No. 552) that *μόλυβο-ς* is the older, *μόλυβδο-ς* the later form of the name of the metal. Here too *δ* is very simply explained to be the representative of a *j*. If we assume a subsidiary form **μολυβ-jο-ς*, properly adjectival, this is related to *μόλυβο-ς* as *χρυσίο-ν* is to *χρυσό-ς*. — In the case of another name of a metal we find the same accessory *δ*. From *χάλυψ χαλύβ-δ-ιο-ς* and *χαλυβ-δ-ικό-ς* are derived: the latter is actually used as a substantive (cp. *παρθενικαί* 'maidens') in the sense of *χάλυψ* by Eur. 'Heracl.' 162

μὴ γὰρ ὡς μεθήσομεν
δόξης ἀγῶνα τόνδ' ἄτερ χαλυβδικοῦ,

and thus gives us an immediate parallel for *μόλυβδος* as explained above (cp. Lobeck 'Paralipp.' 316). We may suppose that a *j* was generated before the *ι*, which was then the origin of the *δ*. — *ῥάβ-δο-ς* was mentioned by the side of *ῥαπί-ς* under No. 513, without any positive assertion that the two words, tolerably equivalent in meaning, were akin. But it is easy to get from *ῥαπί-ς* to **ῥαπι-ο-ς*—with no more difficulty
655 than from *δάκρυ* to *δάκρυ-ο-ν*—and from **ῥαπι-ο-ς* to *ῥάβδο-ς*. — *Λάβδακο-ς* and his son *Λάϊο-ς* may naturally be derived from the same root, and this has already been done by Pott 'Ztschr.' vii. 321. If for the son we assume **Λᾱϝ-ιο-ς* as the form to start with, and explain this with Pott as *δήμ-ιο-ς* (cp. **Δᾱμι-ς*) from the stem *λᾱϝο* (No. 535), the form **Λαϝια-κο-ς* at once suggests itself for the father; and this must have become *Λάβδα-κο-ς*: it is to *Λάϊο-ς* as *Κορινθια-κό-ς* to *Κορίνθιο-ς*. *Αἴακο-ς* shows the same formation. Of course in this case the father would only have got his name after the son, but this is certainly not the only case in which the fathers in myths are younger than their sons. Pott's explanation from *Λαο-δόκο-ς* is opposed by the *α*, while his conjecture that *Λάβ-δα* is the same name as *Λαϊς*[1] now receives confirmation.

[1] On a Praenestine cista discussed by R. Schoene in the 'Annali dell' Instit.' 1870 p. 339 we find ΛΑΓΙΣ.

It has perhaps come from *Λαϝj-α* and means 'popularis,' 'vulgaris.' Cp. however also No. 532.

κ. δ at the end of roots.

We have reserved the instances, in which *δ* seems to have developed phonetically at the end of roots from their final letter, to the end of this section, because these cases are the least convincing in favour of the phonetic transition here discussed. It would be easy to regard the *δ* in this position differently, i.e. as one of those significant consonants which, as has been explained at p. 59 ff., are attached to roots ending in a vowel as secondary elements, as 'root-determinatives,' and this the more so, that on p. 62 we admitted this force of *δ* at any rate in two certain instances. It might e.g. be maintained that the word *πῖ-δ-αξ* 'fountain' has come from the rt. πι (No. 371) or, as Fick ii³. 150 assumes, from the rt. πι 'swell' (No. 363) just as *μέ-δ-ι-μνο-ς*, *μέ-δ-ο-ντες* have from με (*μέ-τρο-ν* No. 461). But as we have already seen repeatedly, how a *j* is developed from a preceding *ι*, and how this *j* then passes into *δ*, it is also legitimate to explain the *δ* phonetically. As in Sanskrit *pī-thá-s* 'water,' was formed from this root, and in Slavonic from the same rt. *pi-vo* 'beer,' so in Greek there may have been formed in the first place πι-α, then πιj-α, πιδα with the meaning 'fountain.' The Homeric *πῑδή-εις* (*Λ* 183) 'rich in fountains,' is derived from the st. πιδα, which has been lost in its independent use, but which survives in the offshoot *πιδά-ω* 'spring,' 'gush,' a word which has phonetically nothing in common with *πηδά-ω* 'leap' (No. 291). From the same st. πιδα comes the diminutive *πῖδαξ* (cp. *βῶλαξ*, *ῥύαξ*). Perhaps too the forms *πισ-τήρ* 'watering place,' 'trough,' *πίσ-* 656
τρα 'watering place,' and *πῖ-σος* 'low-lying land' (*Πῖσα*, cp. *ἄρσεα· λειμῶνες* rt. ἀρδ p. 298) go back to an obsolete **πιj-ω* **πιζ-ω*, the causative meaning of which had developed, just as in *κτίζ-ω* 'found,' by the side of Hom. *ἐν-κτί-μενο-ς*, *οἰκίζω* by the side of *οἰκέω*. But in any case these words show how easy the transition of meaning was from drinking to regions rich in water.—In *κλύδ-ων* on the other hand, and *κλύζω* (No. 63), the *δ* finds support in the Goth. *hlu-t-r-s*, and is therefore better regarded as determinative.—Under No. 463 we quoted the words *μεῖδ-ος*, *μειδ-ά-ω*, *μειδ-ιά-ω* in their relation to Skt.

smi 'smile' and to the words in the other cognate languages. We must assume in Greek, as analogous to the Skt. *smája-m* 'astonishment' (cp. *mī-ru-s*), (σ)μει-ο-ς, to which, so far as form goes, μεῖδ-ος (neut.), preserved in Hesych., is related as γέν-ος to γόνο-ς. Then *j* developed from the diphthong ει, just as ϝ did from ευ in ἀριστεύϝοντα (pp. 570, 586), and finally from this *j* came δ, in the manner so often explained already. This explanation seems to me more probable than that suggested by Hugo Weber 'Ztschr.' x. 242, that the δ is a root-determinative. For (σ)μι not (σ)μει is the root, and I doubt whether these determining expansions, which belong altogether to an early period in language, ever attach themselves to stems, which are already strengthened by 'addition of sound.' — Hesychius has explained both the glosses δυς-οΐζειν and ὑπ-οΐζεσθαι by ὑπονοεῖν. οἴζω was therefore a by-form of the Hom. οἴω. — The case is the same with the rt. χλι. If we consider the list of words χλίειν 'to be warm,' 'luxurious' (χλι-αρό-ς 'lukewarm,' χλιαίνειν), χλῑ-δή, δια-κε-χλι-δ-ώς (Plut. 'Alcib.' 1 'luxurious' = χλι-δ-ανό-ς), χλοι-δ-ή (χλοιδῶσι· θρύπτονται, κέ-χλοι-δ-ε-ν· διέλκετο Hesych.), χλό-δ-η (ἔκλυσις, μαλακία), it becomes probable that the δ developed phonetically from ι and its attendant *j*, in the first group with an unstrengthened, in the second with a strengthened stem. Hence χλοι-δ-ή and χλό-δ-η, which are to each other as the Τροιζήνιοι mentioned on p. 632 to Τροζήνιοι, both go back to χλοι-*ja*. Döderlein ('Syn. u. Etym.' vi. 147) conjectures that the rt. χλι corresponds to the *gli* of the Lat. *gli-sc-e-re*, especially as Paul. 'Epit. Fest.' (p. 98 M.) explains the gloss *glisc-erae mensae* by *gliscentes, crescentes instructione epularum*. κεχλιδώς would then mean properly 'full grown,' and χλιδή would denote the full luxuriant growth, so that these words would also be connected with several quoted under No. 197. But I hesitate to accept this explanation because of the meaning 'to be warm,' which I cannot reconcile with it. Walter 'Ztschr.' xii. 386 ascribes it, on this account, to the Skt. rt. *ghar* 'to be warm.' (and so Fick i³.
657 578). But while rt. *ghar* (cp. Skt. *ghṛ-ṇi-s* 'glow') denotes a violent heat, χλίειν and χλιαρός denote rather a comfortable warmth, lukewarmness. Cp. p. 493 f. — Much resembling

this root, and even in meaning in many ways analogous to it, are the four pairs of stems collected under No. 412: φλα φλα-δ, φλι φλι-δ, φλυ φλυ-δ, φλοι φλοι-δ. Here the *δ* after *ι* and *οι* may be easily explained phonetically. From φλα too we easily get to *φλα-δ*, e.g. by tracing back *ἔ-φλα-δ-ο-ν* to *ἔ-φλα-j-ο-ν*, i.e. to a present stem in *j*, and similarly from *φλε* to *φλε-δ*. But the *δ* of *ἐκ-φλυνδ-άν-ειν* causes some difficulty, and we must not entirely reject the idea of the *δ* being a root-determinative, especially as a *δ* appears also in the cognate languages, without our being justified in explaining this phonetically. Then φλοιδ which is raised by 'addition of sound' has probably come from φλιδ, just as φλοι from φλι. — Three adjectives, which can be without difficulty referred to a shorter root, show the increment of an *ι* and a *δ*, viz. *φα-ι-δ-ρό-ς* with *φα-ί-δ-ιμο-ς*, *φαίδει· δψει* (Hesych.) and *Φαί-δων*, *λα-ι-δ-ρό-ς· θρασύς* (Hesych.) belonging probably to rt. λας (No. 532), and *λο-ί-δ-ορο-ς* 'insulting' beside Goth. *la-i-an* 'insult,' perhaps belonging to *λά-ε· ἐψόφησε*, Lat. *la-trā-re*, and Skt. *rā* (*rā́-ja-ti*) 'bark.' But I give up the attempt to explain phonetically the *δ* in these words. *φαι-δρό-ς* much reminds us of Skt. *bhad-rá-s* with which it was compared with hesitation by Benfey ii. 103. But *bhad-rás-* 'delightful,' 'happy,' 'charming' belongs rather to Goth. *bat-is* 'better' (Fick i³. 155). Perhaps *bha-d* is an expansion of *bhā* 'shine' (Gk. *φα*). It is no objection that the rt. *bhad*, *bhand* means 'shout' after what was collected on No. 407 with regard to the interchange of the ideas 'shine' and 'sound.' But I do not know how to explain the *ι*, which could be explained by epenthesis only in the case of *φαίδιμο-ς*. — In the two Cyprian glosses *σκυδά· σκιά* and *ῥυδία· ῥοά ἢ ῥοιά* ('pomegranate'), quoted by M. Schmidt 'Ztschr.' ix. 364, we may prefer to assign a phonetic origin to the *δ*. We must certainly take *υ* in these words as the representative of *οι*, so that *σκυδά* connects itself directly with the adjective *σκοιό-ς* mentioned on No. 112, as *ῥυδία* does with *ῥοιά*. From *οι* came *j*, as has been shown from the inscriptions to have been the case in Cyprian for *ἀδριjατα* and other forms, and this might then pass into *δ*. — More doubtful instances may be passed over here: still at the close of this section we may at any

rate say one word about the δ which in a small number of words looks quite like an inserted consonant. I have already discussed this unusual phenomenon with reference to Butt-
658 mann ('Lexil.' i. 124) and Lobeck (ad 'Ajac.' p. 403), in my essay 'De nom. form.' p. 7. A few difficulties are removed by the considerations now advanced by Fick ('Die griechischen Personennamen'). As Πλευσίδιππος indisputably contains the two elements Πλευσίδη-ς and ἵππος, so Θούδ-ιππος (by the side of Θουκυδίδη-ς, Θουκλῆς, Θούμαντις) contains Θούδη-ς (Θεύδη-ς) and ἵππος. What was the origin of the Θουδ-, which has been already contracted, is doubtful. Perhaps, as Fick conjectures, it came from Θεό-δοτο-ς (cp. Θεοδᾶς), or perhaps, as Baunack 'Stud.' x. 86 assumes, from a *Θεό-δη-ς or possibly *Θεο-δεής. It is certain that the δ in Νικόδ-ιππος, Λεωδάναξ ('C. I. G.' No. 2338 l. 123) is also no insertion but an integral part of the first word. Other cases are more difficult. Before the adjectival ending -ες δ appears in a strange way in ἐπαυτοφαδές· ἐπ' αὐτοφώρῳ, αὐτοσχε-δ-ές. ὑπόδημα γυναικῶν, εὐαδές· εὔπνοον, εὐαδής· εὐήνεμος, οἱ δὲ εὐαής, all in Hesychius, discussed by Lobeck 'Paralipp.' 156. In the case of ἐπαυτοφαδές we might think of the rt. φα-δ, previously inferred, in that of -σχε-δ-ές of the continued attachment of the δ of σχε-δόν. παλαι-δ-έτης = παλαιετής in the same work may be an error. Of older words ἐχθο-δ-οπῆσαι (Α 518) 'to make hostile,' belongs here, with the later ἐχθόδοπο-ς, discussed by Buttmann. At any rate as far as meaning is concerned, he shows that the derivation mentioned in Eustathius from rt. ὀπ 'see,' is extremely probable. Are we to suppose that δ has here originated from the ι of the diphthong οι? ἐχθοι-οπο-ς would have in its favour the analogy of ὁδοι-πόρο-ς, ὁλοοί-τροχο-ς, Κλυται-μνήστρα. Still I will not come to any decision.

Conclusion.

After this thorough discussion of a long list of particular questions, in part very complicated, I do not think it is superfluous to review briefly the main points of the investigation, and to bring the whole to a conclusion, with a conjecture,

postponed to this place, as to the way in which a *δ* within a word has come from *j*.

1. *δ* is in suffixes forming stems a sound very common in Greek, but rare in the cognate languages and not shown to have existed in the primitive language.

2. In the stems in *-ιδ* this *δ* is moveable to a degree not reached by any other final consonant of a stem.

3. The agreement of the feminine personal names in *-ῑδ* and 659
-ιδ with the Sanskrit names in *ī* is a striking one.

From these three facts there results the greatest probability for the assertion that *δ* in this place only became attached on Greek soil.

4. Where a sound has become attached to an already existing form of old date, there are hardly more than two alternatives possible: viz. either that it has made its way in on the analogy of other sounds, or that it has originated purely phonetically.

5. The first alternative is in this case absolutely improbable, for there is a complete lack of patterns, on which the forms in *δ* which are in question, could have been modelled. For the few *d*-stems to be found in other languages are altogether different.

6. Hence only the second alternative, that of a purely phonetic origin, is left. *δ* has originated from the *j* which easily developed between *ι* and a vowel. The probability of this assumption is increased by the fact that in some cases the origin of *δ* from *j* in Greek itself is universally recognized, and that the same phonetic change is demonstrated by parallel phenomena in other languages.

7. *δ* for *j* is proved beyond doubt for Boeotian and Laconian at the beginning of words.

8. *d* for *j* (*y*) is found further

(*a*) in Italian dialects according to Ascoli 'Krit. Stud.' p. 383 both at the beginning and in the middle of words, as in *dóven* (province of Belluno) beside Ital. *giovane*, Lat. *juvenis*, *dóbia* (Verona)=*Jovia* 'Thursday,' *vérdo* (province of Belluno) = Lat. *aperio* (*ἀμέρδω* : **ἀμερjω* = *verdo* : *aperio*).

(*b*) A final *dd* (cp. Megar. Lacon. *δδ*) for *j* in a surprising way in Kymric, as was shown first by Joh. Rhys 'Revue Celtique' ii. p. 115. This *dd* is pronounced like a soft English *th* (e.g. in *leather*), so Kymr. *trydydd* = Skt. *tṛtī́ja-s* 'tertius,'

Kymr. *pedwerydd*, cp. Skt. *turī́ja-s* 'quartus,' Kymr. *haidd* 'barley' = Skt. *sasjá-m* 'fruit of the field' (with a regular *h* from *s*), Kymr. *rhydd* 'free' = Goth. *frei-s* acc. *frij-ana*. In Old Kymric we have a simple *d*.

9. By these facts in the history of language I consider that the origination of a Greek *δ* from *j* is proved, and I believe that I have been right in assuming the same transition even for cases where we have not such certain primary forms as in the case of the feminines in *ῑδ* and *ιδ*.

It is more difficult to show *how* the change took place, than the fact that it did. With regard to the course of the phonetic transformation the following view now appears to me probable.

10. For an initial letter I hold to my old assumption that
660 before *j* a parasitic anticipatory *d* was produced, which afterwards in combination with the *j*, which changed into a soft *s* (*z*), became *dz* = *ζ*. But while I was previously inclined to derive the *d* of some dialects directly from *dj*, with the sacrifice of the palatal spirant, it now seems to me more probable after Ascoli's profound investigations, that the course of the sounds was this: *j* **dj dz* (*ζ*) *δ*. With the exception perhaps of the Lesb. *δαύω* = *ἰαύω* this can be carried out in every case.

11. In the middle of a word to a limited extent the *dj* which originated in *j* may have passed into *δι* and *δε* before vowels by vocalizing the *j*, and in the present stems under the influence of *σχίζω*, *ὄζω* into *ζ*. — On the other hand, for another group of forms, particularly for the *δ* of *κεχωρίδ-αται*, *κομιδ-ή*, *ἐλπί-δ-ος*, *σχε-δόν*, etc., another view now recommends itself to me, i.e. that the *j* passed directly into the soft sibilant *z* and that this then passed into *δ*. We should thus have the succession *j z δ*. The change from *j* into *z* is recognized. The sibilants in *Κρῆσσα*, *Θρᾷσσα*, *ῥίζα*, *πᾶσα*, *θεῖσα* presume an earlier stage with *z* (*Κρητ-za*, etc.). Why shall not a *j* between vowels also have passed into *z*? We have, thanks to Ascoli, dialectic Italian instances at our command again for *z* from *j*, which correspond exactly except as regards the position of the sound: Friaul. *zovin* = *juvenis* (cp. *dóven* mentioned above), Venet. *averzo* (cp. *averdo*) = Lat. *aperio*. It is certain that a

d can proceed from the soft *z*, if the speaker contents himself with touching the 'alveolar edge.' We find in the Persian languages a later *d* succeeding to a *z*, which has not originated from *j*, and thus is comparable only phonetically and not genetically, e.g. Zd. *zaçta* = Skt. *hásta* 'hand,' OPers. *daçta*, where Hübschmann takes *d* as a spirant, but ModPers. *deçt* with a clearly explosive sound. With this manner of explanation, the interchange between *κομιδή* and *κομίζω* becomes the more intelligible.

12. Finally we may call to mind the pronunciation of the *δ* among the modern Greeks. This is, as all know, just that of the soft English *th*, which we saw written in Kymric with *dd*. Ascoli too in investigating these sounds came sometimes upon this soft interdental spirant, which can become *d* still more easily than *z* can. Perhaps similar sounds were not so strange to ancient Greek as is usually believed. On a small bronze recently dug up at Olympia, several times instead of *δ*, e.g. in *δᾶμος*, Ι, i.e. Zeta, is written, and this doubtless can be explained from a pronunciation coming near to the *z*. In any case it is very probable that between **ἐλπί-j-ος* and *ἐλπί-δ-ος* there lay an *elpiz-os* or an *elpiδ-os*.

As regards the course and the stages of this phonetic change 661
there may be much still doubtful, and in need of further clearing up; but the fact that *δ* is over a wide range the successor of a *j*, is to my mind just as firmly established, in spite of all attacks upon it—for the most part superficial ones—after this renewed re-examination as it was twenty years ago.

5. *δ* with a parasitic *j*.

The phonetic change, to which we now pass on, is essentially different from that just discussed. We only place it here, because we have in this case also to deal with the sounds *d* and *j*. Thus far we have been endeavouring to show that over a wide area *j* generated a *d* before itself, or within a word from itself, and then underwent changes of many kinds, and even total suppression. Now we have to discuss a small number of words in which conversely a *d* seems to have generated from itself the sound *j*. We have been more than once, especially on pp. 486 and 498, brought to see that

in an ante-Hellenic time the spirant *j* frequently attached itself parasitically to various consonants; and the analogies of other languages have been often adduced to confirm this. The most unmistakable case of this kind, from the point of view of Greek, is the change of an original *g* into *ζ*, mentioned on p. 486: rt. *gus*, *γεύ-ω ζεύσασθαι*, rt. *gar*, Arcad. *ζέρ-ε-θρο-ν*. Here evidently *γ* first became *γj*, then *δj*, then *ζ*. But if *g* could become *gj*, why should not *d* have been able to expand itself into *dj*? There was indeed a special 'elective affinity' between *d* and *j*, quite as much as between *g* and *v*. And as we there saw on the one hand a *v* becoming *gv*, and further sometimes a *g*, but on the other hand—and this process is still more indisputable—saw *g* changing into *gv* and sometimes into *v*,—rt. *ang* (Skt. *añǵ*), Lat. *ungu-o*, so in the case of *dj* we have to recognize the two-fold course, on the one hand that of *j* to *dj* (*d*), which has been just discussed, on the other hand that of *d* to *dj* (*j*).

In three cases a *ζ* shows itself as the representative of an earlier *δ* belonging to the stem, without our being able to point to an original *j* or *ι* as the source of the change. After what has been said on *ἀ-ΐζηλο-ν B* 318 by Buttmann ('Lexil.' i. 247), Lehrs ('Herodian' p. 457), Bekker (ad 'Iliad.' p. 415) with reference to the scholia on this place, the glosses of Hesychius, and the explanation of Apollonius Sophista in his Lexicon, we need have no hesitation about accepting the reading of the cod. Ambrosianus and very probably of Aristarchus, who explains the word by *ἄδηλον*, and taking the verse

662 *τὸν μὲν ἀΐζηλον θῆκεν θεὸς ὅσπερ ἔφηνεν*

just as Cicero renders it ('De Divin.' ii. 30, 63)

> Qui luci ediderat genitor Saturnius idem
> Abdidit[1].

The adjective therefore means 'invisible,' and is distinguished

[1] V. 319 was rejected by Aristarchus: it only spoils the connexion, and is the invention of a grammarian, who wished to explain the reading *ἀρίζηλον* or *ἀρίδηλον*, according to Aristonicus, of Zenodotus (*τὸν ἐχόμενον προσέθηκεν*). The transformation of the snake into a stone is quite superfluous here, and the verse may be omitted without any awkwardness. Cp. Franke *ad loc.* [Monro and Laroche retain the line, reading *ἀρίζηλον*].

from *ἀ-ϝίδ-ελο-ς* (*ἀΐδελα πάντα τίθεσκεν* Hesiod 'Fragm.' 130 Markscheffel) only by the appearance of *ζ* in the place of *δ*, and by the quantity of the *e* (cp. *ἀ-ΐδ-ηλο-ς*). The latter difference cannot much surprise us, as we find e.g. in the Homer. *ἕκ-ηλο-ς* the fuller form, in *ἵκ-ελο-ς* the shorter. I do not understand either, how some have been able to find such difficulties in the differing use of *ἀΐζηλο-ς* and the Hesiodic *ἀΐδελο-ς* on the one hand, and the Homeric *ἀΐδηλο-ς* on the other. *ἀΐδηλο-ς* is active = *ἀφανίζων*[1], *ἀΐζηλο-ς* passive = *ἀφανής*. The same change of meaning is found in *ἀ-μήχανο-ς*, in *σφαλερό-ς* and in other adjectives. *ἀΐζηλο-ς* was evidently a rare form, surviving only in its hieratic usage, and for this very reason occurring only here, *ἀΐδηλο-ς* the form usual in the epos, and one which had developed a distinct usage. If it was proposed to refer *ἀΐζηλο-ς* to **α-ϝιδ-ι-ηλο-ς*, and to explain it as an expansion from **α-ϝιδ-ιο-ς* in the sense of 'invisible,' difficulties would arise first from the fact that such an *ἀΐδιο-ς* (= *ἀϊδνός*) is not known, and secondly from the fact that there is hardly a corresponding case of such expansion.—A second word of the kind is *μέζεα*, as Hesiod *Ἔργα* 513 calls the *μήδεα* = *αἰδοῖα*. To start from the second, the Homeric form, and to regard *ζ* as a modification of the *δ*, the link being supplied by *dj*, is recommended by the formation of the word —for there is no trace of a neuter suffix *-jos* or *-jes* such as Fick i³. 710 assumes—and by the probable etymology. For the root seems to be *mad*, which we recognized under No. 456 in several similar meanings, especially in that of flowing. Oppian 'Cyneget.' iv. 441 uses *μήδεα* with the meaning 'urina.' Pott ii¹. 204 compared the ChSl. *mądo* 'testiculus.' We must reject the theory that *μήδεα* and *μέζεα* are connected with *μέσος* = Skt. *mádh-ja-s* (Benf. ii. 30), for *δ* is not the representative of a *dh*.

A third instance of the kind is offered by the various names of the gazelle discussed by Lobeck 'El.' i. 97. The eye of the gazelle is too celebrated for us to venture to doubt the

[1] [Yet in Hesiod. *Ἔργα* 756 *ἀΐδηλα* must be passive: *μωμεύειν ἀΐδηλα* 'to cavil at unseen things;' so in the fragment of Hesiod quoted by Schol. on Pind. Pyth. iii. 14, and perhaps in Soph. Aj. 608 *ἀΐδηλον Ἅιδαν* 'gloom-wrapt Hades' (Jebb): cp. Buttmann s. v.]

663 derivation of *δορκά-ς* from the rt. δερκ (No. 13). But we find by the side of this in Herodotus (iv. 192) the form *ζορκά-ς*, and similarly by the side of the shorter form *δόρξ* in Nicander ('Ther.' 42), in Callim. ('Hymn. in Dian.' 97) and elsewhere, *ζόρξ· ἡλικία ἐλάφου ἢ δορκάς* Hesych.[1]

For the Boeotian names *Θεόζοτος*, *Θέζοτος*, which are evidently variations for *Θεόδοτος*, Beermann 'Stud.' ix. 58 has assumed the intermediate stage *Θεόδjοτος*. Since the discovery of the Elic *ζᾱμος* for *δᾱμος*, mentioned on p. 660, we may also think of a vulgar assibilated pronunciation of *δ*.

The view which I expressed in previous editions, that in the *δδ* of *ἔ-δδει-σεν*, *ὑπο-δδείσαντες*, *κύον ἀδδεές* (*Θ* 423) and in the power of the *δ* to produce position in verses like *οὔτε τί με δέος ἴσχει ἀκήριον* (*E* 817), *μέγα τε δεινόν τε* (*Λ* 10) the *j* of the combination *δj* still had an effect, I was obliged to give up in 'Stud.' viii. 465. The form *ΔϜεινία* (genitive of the proper name *Δεινίας*) on a stone written *βουστροφηδόν*, found at Corinth, which has been discussed most completely by Lolling ('Mittheil. d. deutschen archaeol. Instituts in Athens' i. 40 ff.), proves that the root of the words *δείδια*, *ἔδδεισε*, *δέος*, *δεινός* was *δϜι*. This root Fick i³. 113 is certainly right in comparing with Zd. *dvaêtha* 'fear,' and *δbi* (as Hübschmann writes it) in the compound *dêvô-δbi* 'scaring the demons.'

The analysis of *ἔοικα*, which followed here in earlier editions, and the discussion of its connexion with rt. δικ 'point,' which I previously expressed with reserve, I withdrew in the fourth

[1] I do not venture any longer to adduce here with certainty the names, of various application, beginning with *ι*: *ἴορκες· τῶν δορκάδων ζώων, ἔνιοι δὲ ἡλικιάν ἐλάφου, ἴυρκες· αἶγες ἄγριαι, ὑστριχίδες* (cp. *δορκαλίς· ὄργανον κολαστικόν* Suid.), partly because of Oppian 'Cyneg.' iii. 3 *καὶ δόρκους ὄρυγάς τε καὶ αἰγλήεντας ἰόρκους*, where the two names of animals with slightly altered terminations are distinguished, and partly because of the Kymr. *iworch* 'roebuck,' Corn. *yorch* 'caprea' (Windisch in Kuhn's 'Beitr.' viii. 437). Perhaps Bezzenberger 'Beitr.' iv. 317 is right in conjecturing that the word is a borrowed word, in this case from the Keltic. *ὀρχάς· ἐλάφου εἶδος* (cp. Cyrilli 63) can hardly be separated from it. For what the name of a kind of deer has to do with *ὄρχις* 'testicle,' to which according to Bezzenberger it 'clearly' belongs, I cannot myself discover.

edition. There is now evidence of the rt. ϝικ for ἐοικέναι in the Cyprian ϝεικόνα (Ahrens 'Philol.' xxxv. 85: cp. Fick Bezzenb. 'Beitr.' iv. 184). From the Latin rt. *vic* comes the notion of change in *vices, vice, vicem.* But *ad vicem* means 'like': Sardanapali *vicem* mori (Cic. Att. x. 8, 7)[1], ad parentum *vicem* (Gell. ii. 15, 1). So perhaps we may reconcile εἰκών (cp. ἴχνος) and ἐοικέναι τινί with εἴκειν, παρείκειν. Cp. I. Bekker 'Hom. Bl.' i. 137.

The attempt to prove for Latin the origination of a *d* 664 from *j* I give up as impossible, in spite of the tempting resemblance of *vehendu-s* to Skt. *vahanīja-s* (primary form *vahan-ja-s*).

IV. Changes of the *j* in connexion with other consonants.

We have still to speak of those changes of the *j* which are occasioned by the contact of this sound with other consonants in the middle of a word. For although many of these changes have been already mentioned incidentally, they still require a comprehensive survey. The change of λ*j* into λλ, σ*j* into σσ, τ*j*, θ*j*, κ*j*, χ*j*, into σσ (ττ), γ*j*, δ*j* into ζ, when these sounds occur in the middle of a word, and the metathesis of *j*, in the form of ι, into the preceding syllable after ν and ρ, are facts so generally recognized, that it is unnecessary to prove them, or even to quote all the instances. It is sufficient to refer here especially to Ahrens 'Aeol.' §§ 8, 9, and to the subsequent treatment of the question by Christ 155 ff., Leo Meyer 253 ff., Schleicher 'Comp.[3]' 221 ff., and in my 'Greek Verb' p. 201 ff., and the 'Elucidations' p. 44 ff. The facts are so certain, and so easily intelligible, that I was able, at the same time with Ahrens, to introduce them into my school-grammar. All that concerns us here is the manner of regarding this process phonetically, and the establishment of some disputed changes. To proceed the more safely, let us begin with what is simplest.

[1] [Boot's note is: Sequens aetas *vice* et *ad vicem* dixit, quod tamen non est consuetudinis Tullianae.]

1. λλ=λj, Aeol. ρρ=ρj, νν=νj.

No one will hesitate to regard the transition from ἀλ-j-ο-μαι (cp. *sal-i-o*) to ἅλλ-ο-μαι, from ἀλ-j-ο-ς (cp. *al-i-u-s* and the Cypr. αἶλος) to ἅλλ-ο-ς (No. 524), from φθερ-j-ω to Aeol. φθέρρ-ω (Att. φθείρ-ω), from κτεν-j-ω to Aeol. κτέννω (Att. κτείν-ω), from κενjο-ς (No. 49), to κέννο-ς (Ion. κεινός, κενεός, Att. κενός), as a simple assimilation, or as Leo Meyer calls this highest degree of the adaptation of one sound to its neighbouring sound, *Ausgleichung* (entire assimilation), of the spirant *j* to the consonant standing before it. Other languages, especially the Teutonic, establish the process by the numerous verbs, in which these same groups of sounds have developed themselves in precisely the same way (Grimm 'Gr.' i. 870 f.): OHG. *stellan* (cp. στέλλειν) from *stel-jan*, *dennan* (cp. τείνειν, Aeol. τέννειν) from *den-jan*, *quellan* = βάλλειν (p. 474) from *quel-jan*. In the case of the Aeolic formations the consonant
665 *j* stands directly by the side of the vowel. We may confidently assume as the primitive Greek form, i. e. that which was anterior to the breaking-off of the dialects, the form with ι, e. g. κενιο-ς. For it is only from this that we can explain all the several forms of the dialects. In the Aeolic πέρροχος, περρέχειν (Ahr. 56) we must assume περjοχος, περjεχειν as an intermediate form, which makes very clear the variation between the vowel and the spirant. The Asiatic branch of the Aeolic dialect is evidently the most consistent in these phonetic changes, inasmuch as here the law holds good: λ, ρ, ν completely assimilate the following spirant. For just as λj, ρj, νj pass into λλ, ρρ, νν, so do also λF, ρF, νF, λσ, ρσ, νσ: πόλλα = πολF-α, γόννα = γονF-α, στέλλαι = στελ-σαι, ἔρρα or ὄρρα = ἔρσα (for εἶρα). As further in the same dialect a preceding σ is likewise completely assimilated to a following μ or ν: ἔμ-μ = ἐσ-μι, ἔν-νυ-μι = ἐσ-νυ-μι, the still more comprehensive law holds good: every spirant is completely assimilated to a contiguous λ, ρ, μ, ν.

2. σσ from σj and σF.

This rare change is based upon the same principle of progressive assimilation. The hard sibilant drew over the

contiguous soft spirant *j* to itself. So the quite isolated *ἀήθεσσον* (*K* 493) *ἀηθέσσουσα* (Apoll. Rhod. iv. 38) *ἀηθέσσοντος* (Nic. 'Alexipharm.' 378), from the st. *ἀηθες*, *νίσσο-μαι* (rt. νεc No. 432), *πτίσσ-ω* from *πτισj-ω* rt. πτιc, the relation of which to Lat. *pins-o*, Skt. *pish* we discussed on p. 498[1]. This same group of sounds sometimes originates also from *σϝ*: Aeol. *ἴσσο-ς* (Att. *ἴσο-ς*) = *ϝισϝο-ς* (No. 569), *τέσσαρ-ες* for *τεσϝαρ-ες* and this from *τετϝαρ-ες* (No. 648). *κονίσσαλο-ς* for *κονισϝαλο-ς* (above p. 430). In the dative plural the *σσ* of *νέκυ-σσι*, *χείρ-ε-σσι* similarly is based upon the combination *σϝ*. The termination *σϝι* closely approximates to the Indian locative termination *su* for the earlier *sva* 666
(Schleicher 'Comp.' § 256). — So too *ἥμισσο-ν* 'half' (inscription from Tegea in Cauer's 'Delectus' 117, 25) beside *ἥμισυ* points to *σϝ* (Ascoli 'Krit. Stud.' 338 f.)

3. *σσ* (*ττ*) from *τj*, *θj*.

The thorough investigation by Ascoli in the 'Krit. Stud.' p. 324 ff., has led me to a view as to the origin of these groups of sounds differing from my former theory. I am still of the opinion that the double *σ* of *λίσσομαι*, *μέλιττα*, *μέσσος* did not originate directly from the hypothetical primary forms **λιτ-jo-μαι*, **μελιτ-ja*, **μεθ-jo-ς* (No. 469), but rather owing to the early transition of *j* into *z*, passed through the intermediate stages **λιτ-zo-μαι*, **μελιτ-za*, **μεθ-zo-ς*. The

[1] The different treatment of the same group *σj*, from which e. g. in *τρείω* for *τρεσjω* the vowel *ι* has come, has led some scholars to doubt this transition (Osthoff 'Das Verbum in der Nominal-Composition' p. 338 ff.). The inducement to this fluctuation lay, I believe, in the fluctuation between the semi-vowel and the spirant *j*, such as occurs also in *κενό-ς*, which presupposes *κένnος*, **κένjος*, and *κενό-ς*, *κεινό-ς*. Further I may refer to p. 431 and to Ascoli 'Krit. Stud.' p. 343, where also *λύσσα*, to which we shall return, is well explained from rt. *λυσ* = Skt. *rush* 'be angry.' In Prākrit we have *ss* for *sj* in the gen. *tassa* = Skt. *tasja*, Gk. *τοῖο*.—My friend Windisch has called my attention to a hitherto unnoticed case of *σσ* over against a *σ* of the root. Skt. *kąsá* (m. n.) 'brass,' 'metal vessel,' whence *kąsja* 'cover with brass,' *kąsja-m* 'brass,' remind us of *κασσίτερο-ς* (Att. *κατ̓τίτερο-ς*). Certainly the origin is not quite clear.

soft spirant *z* attracted to itself the preceding explosive, becoming itself however hardened by the contiguous sound. We may represent this by the intermediate stage *λιτ-σο-μαι, etc. On the other hand I now concede to Ascoli that the combination *ττ*, which I previously regarded as coming like a sister from the common mother *tz* or *ts*, has always only originated from *σσ*, and hence is to be regarded as the daughter of the latter. The reasons which decide me to adopt this view are the following:—

1. As a matter of fact, there is earlier evidence for the *σσ* than for the *ττ*. *σσ* is exclusively prevalent in Homer, with all the Dorians, and with the Aeolians of Lesbos. *ττ* is limited to Thessaly, Boeotia, and Attica. These relations are explained more simply, if the three last-named districts abandoned the sound in use at an earlier period[1].

2. There are some forms in *σσ*, with by-forms in *ττ*, where an explosive sound with a *j* cannot with any probability be assumed as a preliminary stage. Ascoli has, I think, proved the following to be such. λύσσα 'rage,' 'fury' (λυσσᾶν, λύσσημα, λυσσητήρ), beside Skt. *rush* (*rṓsh-a-ti* and *rúsh-ja-ti*) 'to rage.' λύττα is quoted from Aristophanes (λυττῶσα 'Lysistr.' 298), Plato, and Xenophon. — *κα-σσύειν* 'sew' has long been recognized as connected with Lat. *suo* (No. 578). It is best to assign *siv* (*sju*) as the root, and to regard the *σσ* as coming from *σj*, before which the apocopated preposition
667 *κατά* necessarily lost its *τ*, just as in *κά-σχεθε*. To say that the *τ* of the preposition *κατ-* had an assimilating effect upon the initial consonant of the root, Ascoli justly regards as illegitimate and unexampled. Hence the *ττ* of the Attic *καττύω*, quoted from the Old Comedy, has not come from *τ-σ*, but from *σσ*. — *διαττᾶν* (No. 571) 'sift' explained in Hesych.

[1] How completely even at a later period the Greeks felt the *σσ* to be normal, and *ττ* a dialectic deviation is shown by Lucian's *δίκη φωνηέντων*, [in which Sigma prosecutes Tau before a jury of vowels for unlawful encroachments upon his hereditary rights. *τοῖς γὰρ προπεπραγμένοις ἀεί τι μεῖζον προστιθὲν ἄρδην με τῆς οἰκείας ἀποβλίψει χώρας . . . . ἐτόλμησε καττίτερον εἰπεῖν καὶ κάττυμα καὶ πίτταν κ.τ.λ.*]. In modern Greek there are but few traces of *ττ* left, as in *πλάθω* = *πλάσσω*, or in the Tzacon. *fiáthu* = *φυλάττω*, as Deffner kindly informs me.

by *διασήθειν*, evidently belongs to the rt. *sa*, or more probably *sja*, from which came *σήθειν*, *σῆστρο-ν*, Lith. *sijóju* with the like meaning. The exclusively Attic verb, which never appears with *σσ*, is evidently a denominative from *δίατταο-ς* 'sieve.' The *ττ* is therefore a late transformation from *σσ* for *σj* (*δια-σjo*). — The root of the proper name *'Οδυσσεύ-ς* may be left undetermined, even after Roscher's attempt, mentioned on No. 15 b. But even if *σσ* has here originated from a guttural, it is not very probable that the form *'Ολυτεύς*, which appears upon vase-paintings (Roscher 'Stud.' iv. 201), owes its *τ* (for *ττ*) to the very early period, in which *κj* appeared in its place. We must rather regard this *τ* as a dialectic variation from the ordinary Greek *σσ*.

3. The transition from *σ* to *τ* (cp. above p. 425) is supported by unmistakable examples from Italian dialects (Ascoli 'Krit. Stud.' 384), of which the forms in use at Logudoro in Sardinia, *Tatari* or *Tataris* for the name of the neighbouring town *Sassari* and *tilíba* 'pulse' = Lat. *siliqua*, *attatare* = Ital. *as-saziare* are the most convincing. From this fact, even in the case of a single dialectic *τ* beside *σ*, e. g. that of the Theban *τῦκο-ν* = *σῦκο-ν* (Strattis in Meineke's 'Com.' ii. 781) it is probable that it originated from *σ*, of course only in the dialects which have *ττ* for *σσ* (Ascoli p. 341 f.), hence perhaps also in *πίτ-υρο·ν* from the rt. *pis*, *πτις* (cp. above p. 665). Such a *τ* and *ττ* can hardly have been quite the same in sound as the ordinary *τ*. The isolated Cretan spelling *θάλαθθα* (Voretzsch 'De tit. Cret.' p. 18) with its *θθ* beside *ττ*, *σσ* probably only marks the different attempts to indicate sounds in writing, for which the alphabet had no special signs. We must also take into consideration *'Ατθίς* beside *'Αττική* and the name of the deme *Πίτθο-ς*. Perhaps we may conjecture interdental sounds, which in most places were taken as hard spirants, in others as explosives.

Further in the Greek feminine forms, in which the termination *ια* or *ja* is added to a stem in *ντ* (*παντ-ja*, *λυοντ-ja*), the *j*, we may suppose, first passed into *z*, then along with the *τ* into *σ*: **παντ-za*, **παντ-σα*, **πανσα* (*πᾶσα*, Aeol. *παῖ-σα*). The sharp pronunciation of the *σ* is indicated by

668 the isolated *ἀνταποδιδῶσσα* beside *πᾶσα*, on the Elic inscription of Damocrates (Cauer 'Delectus' 116, l. 16).

4. *σσ* (*ττ*) from *κj*, *χj*.

This change, in which there is an alteration not merely of the quality but also of the organ of the first element, may be explained I think, most satisfactorily, if we assume one more step in the transition[1]. If we compare *ἥσσων* = *ἡκ-jων*

[1] While Ascoli by his complete investigation in the 'Krit. Studien' has entirely convinced me of the priority of the *σσ* over the *ττ*, I must confess to doubts which I cannot overcome, as regards the origination of *σσ* from *kj*, *khj* or even *pj*, with respect to his acute theory, which, as I gladly admit, is distinguished by simplicity. I refer especially to p. 370 ff. of the work mentioned above. Ascoli explains all the phenomena by the change of *j* after consonants into a sibilant which he denotes by *ź*, while I use for it the sign *z*. It is quite intelligible how *ss* can come from *tz*, but we should suppose that in the same way *ks*, i. e. *ξ*, must come from *kz*, and *ps*, i. e. *ψ*, from *pz*, and hence according to this theory from *ἡκ-jων* through *ἡκ-zων*, **ἡξων*, from *ὀπ-ja*, which he assumes **ὄψα*, not *ἥσσων*, *ὄσσα*. This has naturally not escaped the delicate sense of this great student of phonetics. In the note (cp. p. 321) he replaces this *ź* by an intermediate step *ż*, i. e. the sound of the French *j*, and he writes for the sound which is produced from *ź* or *ż* by the assimilating influence of a hard consonant, *ç*, so that he arrives at the sequence **ἡκ-jων ἡκçων* (Asc. writes **ηκççων*) *ἥσσων*, *ὀπça*, *ὄσσα*. Here, I confess, there is in my opinion too little evidence for the sounds *ż* and *ç* in Greek, though I myself hit upon the former sound in 'Tempora und Modi.' The wide-spread tendency of the Romance languages to assimilate a guttural and a labial explosive to a following spirant, e. g. in Lat. *saxum*, Ital. *sasso*, Lat. *ipsum*, Ital. *esso*, Lat. *sapiat*, Provençal *sapcha*, Fr. *sache* has little corresponding in Greek; on the contrary it is as a rule the custom in Greek to retain to a great extent the place of articulation of the consonants. Now I cannot see how the soft spirant, which was produced from the *j*, after it had grown hard under the influence of a preceding hard explosive, should have completely shifted the place of articulation of the latter. On the other hand, we are keeping within the familiar and perfectly clear region of dentalism, if we assume that *kj* before a vowel at an early date became *tj*, and so, as I do, transpose this first step to a period antecedent to the formation of sibilants, and hence assume **ἡκjων*

or Θρῇσσα = Θρῃκ-ja with Ion. κρέσσων = κρετ-jων or with 669
Κρῆσσα = Κρητ-ja, or ἐλάσσων = ἐλαχ-jων with βάσσων = βαθ-jων, we shall be able to assume the same group of sounds as the proximate antecedent step to σσ in both cases. Just as under 3 we traced back σσ in the first place to τz, so here too this will be the right point of departure. The preliminary stage, which we assume, is precisely the same which we find in Wallachian, e. g. Lat. *glac-ie-s* (pronounced *glak-ie-s*), Wall. *ghiatzë*. The French *glace* corresponds to the Doric and Ionic forms. This preliminary stage appears just as clearly in Frisian, where, according to Schleicher (p. 78), e. g. from the old *rekkja* 'tendere' comes *resza* [Eng. *reach*], the *sz* of which is to be pronounced like *ts*, from *likkja* 'aequare,' *lisza*, etc. We may notice in these transitions, that the aspirates θ and χ exercise precisely the same influence as the tenues τ and κ. This is another confirmation of the fact, which we recognized above, when discussing the pronunciation of the aspirates, that these consonants really contain in themselves the explosive sound *plus* the aspirate.

Hitherto we have seen that the course of their phonetic history has been the same for the dental and for the guttural group. But how have ἡτ-σων, Θρᾳτ-σα, ἐλαθ-σων, or the forms which immediately preceded them with *z* (from *j*) as the source of the σ, arisen from the primitive forms, which we must assume? I believe it was by that influence of the *j* upon the preceding guttural, on which Schleicher has thrown so much light, whereby the latter became palatalized,

*ἡτjων ἥσσων, entirely denying the change from γj into σσ, of which more hereafter. Of course the same holds good *mutatis mutandis* of the soft sounds γ, β beside *j*, and their relation to ζ. In any case, we should be very thankful to Ascoli if he would make somewhat clearer in connexion with his general view of these combinations of sounds the phonetic value of the somewhat mysterious ç, which he assumes, and its relation on the one hand to *sh* or *š*, which on p. 321 appears as the preliminary stage to ç in **hēšōn*, later **hēççōn*, and on the other hand to the sound of σσ and of the simple Greek σ. What Ascoli says on p. 21 of his 'Vergl. Lautlehre' as to the force of ç, cannot be quite understood without the most specific acquaintance with dialectic sibilants in Italian.

and gradually shifted from the palate forwards into the dental region. Hence the phenomenon is here too assimilation, and that of a retrogressive character.

The aspiration in the χ was lost, like that in the θ, either at this early shifting of the place of articulation, or else later after the production of a sibilant. It is hardly needful to mention that according to my present view I should ascribe priority to the σσ over the ττ, even in cases where it has originated in κj, χj.

5. ζ from δj and γj.

This change has been so thoroughly discussed by us above (p. 615 ff.), that anything more seems to be superfluous. The parallelism with the groups just discussed is
670 unmistakable. We assumed that μέλισσα had come immediately from μελιτ-σα, more remotely from μελιτ-za. The last step, in the case where the medial is in contact with the j, is actually found in ἀργυρό-πεζα, from ἀργυρο-πεδ-ια, for ζ had the sound *dz*. And just as the Boeotians made σσ into ττ, so did they make ζ into δδ: θερίζω, Boeot. θερίδδω. As in this case the dental medial united with j to form δj, δz = ζ and dialectically δδ, so the guttural medial passed in the first place into the dental, and then underwent the same change: ῥεγ-jω, ῥεδ-jω, ῥεδ-zω, i. e. ῥέζω, Boeot. ῥέδδω. Here the Laconians and even the Megarians agreed with the Boeotians: μᾶδδα = μᾶζα. The Romance and Teutonic dialects, which just above proved instructive, afford us analogies here too: Ital. *razzo* = *rad-iu-s*, Fris. *lid-za* for *ligg-ja* 'lie.' But in Greek one important difference from the changes of the hard group presents itself. The majority of the dialects kept to the group of sounds ζ = *dz*, whereas all Greeks made a further change in τσ by the complete suppression of the explosive element. This last step in the softening, where the soft sound is concerned, is only taken in Modern Greek, where ζ has the sound of a soft *s*, and is related to σσ precisely as the soft sound is to the hard.

6. σσ (ττ) apparently from πj, ζ apparently from βj.

In other, and especially more modern languages it is by no means unknown for the labial consonants with a

following *j* to coalesce into special groups of sounds. Schleicher has carefully examined these phenomena, but he fully shares the view which I expressed in the 'Tempora und Modi' (p. 105 f.), that these changes are not to be admitted in the history of the Greek language. It cannot be simply an accident, that in almost all cases [1], which here come under consideration, it is more than doubtful whether the labial 671
does not originate in a guttural, as in *πέσσω*, which we discussed on p. 465 in *ὄσσε* = *ὀκ-ι-ε* (No. 627) by the side of *ὄψομαι*, *ὄσσα* = *ϝοκ-ja* (No. 620) by the side of *ὄψ*, *ἔπ-ος*, to say nothing here of some doubtful cases (cp. *ἐνίσσω* No. 623). The same is true of *νίζ-ω* by the side of rt. νιβ (*χερνιβ*, *νίπτω*). Sanskrit gives us *nij* (No. 439), therefore the *β* is of later date, and nothing prevents us from deriving *νίζω* from *νιγ-jω*. It is only the *ζ* of *λάζομαι* and *λάζυμαι*, apparently from the rt. λαβ (*λαμβάνω*) which has no radical guttural side by side with it. Bezzenberger 'Beitr.' iv. 318 endeavours to deduce for *λάζομαι* (leaving quite unmentioned its important by-form with *υ*), a rt. *λαγ*, which he identifies with Skt. *arǵ* 'extend one's self,' 'attain' (= *ὀρέγω* No. 153), and according to Fick with AS. *läccan* 'prehendere.' If there is any truth in this, we should in any case have to separate *λάζεσθαι* completely from *λαμβάνειν*, with its clearly recognizable rt. *λαφ* = Skt. *labh*.

[1] Ascoli p. 336 collects eight groups of examples of *σσ* from *πj*. But in six of these a radical *κ* unquestionably preceded the *π*. The eighth group is formed only by the traditional Aeolic presents *κόσσω* (=*κόπτω*), *βλέσσω* (=*βλέπτω*, *βλέπω*), which are quoted exclusively by grammarians, and which I agree with Ahrens ('Aeol.' 67) in rejecting, all the more decidedly because they are brought forward almost entirely to support etymologies. With some the grammarians themselves intimate that they are only presumed, and by no means actually authenticated: thus 'Anecd. Oxon.' i. 262 *βλέπω, ὅπερ κατ' Αἰολεῖς* (i.e. according to the Aeolic fashion) *βλέσσω γίνεται*. Only *νίζω* and *λάζομαι* can be adduced to support *ζ* from *βj*. For *vj* as a source of *ζ* Ascoli has the instances *ἄζω* 'dry,' beside *αὔω* (No. 600 b), *ἀμπάζονται* 'Greek Verb' p. 224, beside *παύω*. Here I regard the *ϝ* as lost and *ζ* as the representative of *j*.

7. σσ (ττ) apparently from δj, γj.

It is as clear as day that, putting out of the question the explosive element, which was longer retained in the ζ, σσ (ττ) is to ζ (δδ), as the tenuis is to the medial; and that therefore we are to expect the former group only where the stem ends with a tenuis, or with the aspirate, which only differs from it by the addition of the breathing, and the latter group where the stem ends with a medial. This law of language seems to be liable to some exceptions, inasmuch as in a number of words the hard group of sounds seems to proceed from soft stem-consonants. Schleicher p. 162 has rightly recognized that such a transition would be quite abnormal. It would be the more surprising, that it contradicts what we have taken to be the fundamental principle of all phonetic change, — that it would be, not a softening, but a hardening. Even Grassmann, who holds to the old doctrine, can suggest no other explanation for this (p. 37), than one which is entirely contrary to nature, 'that this sound before its loss in Greek after mute consonants seemed more akin to the hard sounds than to the soft.' It seems therefore to be worth while examining whether this phenomenon also, like that discussed above in the case of the labials, is not to be explained in a different way. I undertook this investigation in brief in the 'Prooemium to the Programme of Lectures' at Kiel, for the summer of 1857 ('De anomaliae cuiusdam Graecae analogia')[1]. The results of the investigation are as follows.

672 Apparently σσ comes from δj in the comparative βράσσων, which occurs only in *K* 226 μοῦνος δ' εἴ πέρ τε νοήσῃ, ἀλλά τε οἱ βράσσων τε νόος λεπτὴ δέ τε μῆτις. This comparative is generally derived from βραδύ-ς. But this derivation was unknown to the older grammarians. On the contrary, according to Aristonicus, the prae-Alexandrine grammarians denoted as οἱ γλωσσογράφοι derived the comparative from βραχύ-ς. Aristarchus opposed this view, but only because

[1] Goldschmidt in the 'Ztschr. der d. morgenl. Ges.' 1876 p. 495 has again expressed himself in favour of hardening, appealing to Prākrit forms.

Homer does not elsewhere use the word βραχύς. But he too did not take βράσσων as the comparative of βραδύς, though this word is very common in Homer, but as the participle of βράσσειν 'seethe,' 'βρασσόμενος, ταρασσόμενος διὰ τὸ δέος,' in which certainly no one will follow him. Hence the derivation from βραδύς did not once occur to him either, even as a possible one. So weak is the authority for this explanation. Now as we cannot hold with the same rigour to the critical principle of Aristarchus — to refer the Homeric usage to a rule as strict as possible — nor, above all, to his disinclination to admit words, which in later times were commonly current, in isolated passages in Homer, inasmuch as the investigations of Friedländer ('Zwei homerische Wortverzeichnisse' Leipzig 1860) show that the number of ἅπαξ εἰρημένα in Homer is unusually large, and so the decision of Aristarchus cannot carry conviction for us: we shall rather have the less hesitation in accepting the older tradition, according to which βράσσων means 'shorter,' in that βραχύς is common enough in later Greek in metaphorical applications. For instance, μετὰ βραχύτητος γνώμης (Thuc. iii. 42) corresponds to our 'short-sighted' as applied to the mind. We have more than enough confirmation from another dialect, conjecturally Aeolic (Ahrens 'Dor.' 504), in βρόσσονος· (cp. βροχέως) βραχυτέρου (Hesych.) Thus βράσσων has beyond all doubt come from βραχ-ιων, like ἐλάσ-σων from ἐλαχ-ιων; and this anomaly is removed [1]. All other instances of this change quoted from the Attic dialect are altogether dubious. — But there are certainly in other dialects more traces of an interchange of σσ with ζ. And indeed σσ would come from δ, if the gloss of Hesychius πέσσον· χωρίον Κύπριοι, πεδίον· Αἰολεῖς τινὲς ὁμαλές were quite sound, as Ahrens (66) and M. Schmidt (Hesych.) suppose it to be. This origin for the group of sounds is less certain in γάσσαν· ἡδονήν (Hesych.), for though in the case of this word we naturally think first of rt. 673

[1] Cobet 'Mnemos.' N. S. iv. 236 comes to the same conclusion, as so often without any regard to German science. Gradually βράσσων 'shorter' is finding its way even into our school books (Franke [and Monro] on Il. *K* 226).

ϝαδ (cϝαδ No. 252), with $\gamma = ϝ$ (cp. p. 597), yet it is also possible that it is akin to γηθέ-ω (No. 122), and that γάσσα is from γαθ-ja (cp. *gaud-iu-m*). But the Tarentines (Ahrens 'Dor.' 98) said not only σαλπίσσω for σαλπίζω, where a γ, and originally, as we shall see immediately, a κ occurred, but also φράσσω for φράζω. In this very word φράζω, however, the δ which appears in ἀρι-φραδ-ής, πέ-φραδ-ο-ν and other words may possibly have originated in τ. In 'Ztschr.' iv. 237 I have attempted to trace the rt. φραδ back to πρατ [1], and to establish its identity with the Lith. *prat* 'understand' (*pra-n-t-ù* 'I mark,' *próta-s* 'insight'), and Goth. *frath-s* 'understanding,' *frath-jan* 'understand.' Similarly Fick i³. 679. I did not, however, venture to place this case among the certain instances of aspiration and the extremely rare softening of τ to δ. In the Tarentine φράσσω and the Boeotian φράττω (Corinna apud Eustath. ad 'Od.' p. 1654, 25) the harder sound may have been retained. — The case is probably the same with λίσσον, which is explained in Hesychius *inter alia* by ἔλασσον, and in this meaning is to be regarded as equivalent to ὄλιζον. We saw on p. 534 that the γ of ὀλίγο-ς is softened from κ. — But for the majority of the dialectic forms, which we have every reason to separate from those of ordinary Greek, another explanation is also possible, which I regard as on the whole more probable. The Romans as a rule expressed a ζ in the middle of a word by *ss*: *atticisso*, *massa*. The *ss* must undoubtedly have properly expressed the doubled *soft* sibilant, for which there was no special character. How if it was much the same with those Tarentine, Cyprian, and Aeolic forms? In that case these dialects, earlier than the others, allowed the *dz* (ζ), at any rate in certain forms, to pass into *zz*, that is, into the very same soft sibilant, which in Modern Greek is denoted by ζ, only pronounced more thickly, and therefore felt to be doubled. In other instances too the character σ must have occasionally carried with it the soft sibilant, e.g. in Σμύρνη (as compared with Ζμύρνη). But such softenings cannot guide us at all with regard to the Attic dialect, in which σσ

[1] Lat. *inter-pre-s* I now prefer to omit. Cp. Bréal 'Mémoires' iii. 163 ff.

and ζ were strictly distinct sounds. The explanation here offered also suits well the statements that we have with regard to a reverse change, which sometimes occurs, and that in the same dialects: Tarent. ἀνάζω = ἀνάσσω, etc. (Ahr. 'Dor.' 101), and also the fact that the later Greek language shows a similar fluctuation: συρίσσω being found after 674
Christ for the older συρίζω, etc., and conversely in modern Greek -αζω, -ιζω (i. e. *azo*, *izo*) very commonly for the old -ασσω, - σσω (Ascoli 'Krit. Stud.' 354).

In 13 primitive verbs and 7 verbs derived from noun-stems σσ (ττ) seems to come from γ. In the case of three of the primitive verbs, Greek itself seems to show a fluctuation between the harder and the softer sound, i. e. in πήσσω, the later by-form of πήγνυμι (No. 343), and πάσσαλος (p. 523), σάττω (σάκος by the side of σάγη) and ὀρύσσω (p. 529): in three, viz. in φράσσω = *farc-io* (No. 413), in μάσσω (No. 455) and in πλήσσω (No. 367), the other languages give us forms with *k* which are undoubtedly akin. For a fourth verb too, πράσσω, the Lith. *perk-ù* 'I sell' is of itself enough to make it probable that we must regard πρᾱκ as the stem, derived from the shorter st. πρᾱ, which is preserved in πι-πρά-σκ-ω and in ἔ-πρᾱ-σεν· ἐπραγματεύετο, recorded by Hesych. (cp. No. 358). But on Greek soil too at least one relic of the st. πρακ has been preserved in an unaltered form: πρᾶκο-ς, or as it would probably be more correctly accentuated, after the analogy of πηγό-ς, λοιπός, στιλβός, πρακό-ς 'C. I.' 1702 l. 4. The word is equivalent, as Boeckh has seen, to πράκτιμο-ς or πρακτίμιο-ς (also a Delphic expression), and therefore means 'liable to the exaction of a penalty,' 'punishable' (cp. εἰσπράσσειν). — The form ἐγρή-σσω, which occurs even in Homer [Λ 550 and (in the same verse) Ρ 660], must have come from the shorter stem preserved in ἔγρε-το, by means of an expanding κ, just as πρᾱκ comes from πρα. The case is much the same with ῥήσσω, the late by-form of ῥήγ-νυμι (cp. p. 542), because of ῥάκ-ος, only that here the priority of the κ cannot be proved so decisively. Hence for 7 or 8 out of 12 verbs the conjecture is justified, that the reason for the hard sibilant lay in a κ originally present. As for the four or five remaining verbs, σφάττω, which from Plato downwards becomes more common

than the older σφάζω, seems to have taken the place of σφάζω in order that too many sibilants might be avoided: and we must remember in this case, that δδ was unknown to the Attic dialect. Hence the ττ is here somewhat in the same position as in the Cretan Ττῆνα (p. 621). Of the remaining words there is only τάσσω, the origin of which is still doubtful, and which is not indeed used frequently until after the time of Homer. ἄσσω (κατάσσω) = ἄγνυμι cannot be proved to exist until after the time of Augustus, φρύσσω = φρύγω is not by any means certain in Theocritus: [Ahrens and Meineke read φρύγοντος in xii. 9. From Fritzsch's note it seems that φρύττοντος here rests only on the authority of early *printed* texts, the MSS. here as in vi. 16, and xi. 12 having φρύγοντος]. In these cases we need not hesitate to admit real deviation from the ancient paths on the ground of
675 the apparent analogies just discussed[1].—As to the derivative verbs, we have for σαλάσσω the forms σάλαξ (gen. σάλακος) and σαλάκων preserved by the side of σαλαγή. ἀλλάσσω must be referred to a noun-stem ἀλλακο, which is to ἀλλο precisely as Skt. *anja-ká* to the equivalent *anja* (No. 524). A similar origin for μαράσσω, πλατάσσω, πτερύσσω is in no way improbable, as κ is in secondary word-formation an extremely common element, while γ is an element which is in hardly any case original. For μαρμαρύσσω we learnt on p. 535 to recognize a noun-stem in *-ūka* as its source. It can hardly have been otherwise with the New-Attic ἁρμόττω by the side of the older ἁρμόζω. Thus the general result, recognized also by Schleicher 'Comp.[3]' 226, can hardly be contested, that with the exception of a small number of verbs, which are not yet fully elucidated, and of which some are very late, σσ (ττ) came not from γ but from κ, which κ however—after the establishment of this group of sounds—in the remaining forms, and especially between two vowels (ἐφράγην, πέπραγα), as was

[1] Ascoli p. 326 conjectures that in some cases in this list σσ came from κτj, e. g. σφάσσω from σφαγ-τ-j-ω by a combination of the τ of the present with the syllable *jo, je* of the *i*-class. I will not deny the possibility. But there is hardly a certain instance of σσ (ττ) from κτj. ἄνασσα and ἀνάσσω have perhaps come not from ἀνακτ, but from the shorter stem ϝανακ (ἄνακ-ες, ἄνακ-ο-ι Angermann 'Stud.' iii. 119).

explained above pp. 533 ff., was softened to γ. We must notice here again, as an important fact for the chronology of the history of the language, that the latter softening is of later date than the first establishment of this group of sounds.

8. χθ from *ghj*.

In one indubitable instance, and that at the beginning of a word, the group χθ corresponds to an Indo-Germanic *ghj* (Skt. *hj*), i. e. in χθές (No. 193) = Skt. *hjas*, Indo-G. *ghjas*. The most natural explanation of the θ here is that a dental sound was developed before *j*, as in the numerous instances thoroughly discussed above, and that after the change of the *gh* to χ, this necessarily became θ by the assimilating influence of the χ (Ebel 'Ztschr.' xiv. 39). Ascoli 'Krit. Stud.' 323, 377 will not allow that the θ here is 'a true explosive,' but this seems to me dangerous, for the τ in πτύω (rt. *spju*), which Ascoli himself compares, was certainly an explosive.—The origin of the χθ in χθαμαλό-ς compared with χαμαί, and the connexion of these words with Skt. *ksham* 'earth,' have been discussed under No. 183. — τρίχα must have become τριχθά by the addition of the suffix *-ja*, the *j* of which afterwards passed 676
into θ. τριχθά therefore (cp. τετραχθά) is to τρίχα as ὑστάτιος to ὕστατος, λοίσθιος to λοῖσθος. Further combinations with regard to these words are offered by Joh. Schmidt 'Ztschr.' xvi. 436, and Möller 'Palatalreihe' p. 25, who refers *i*-χθύ-ς with Lith. *žu-v-i-s*, with Fick i³. 585, to *χ*jv*, and regards the *j* in this stem (cp. χα, χάσκω Van. 237) as parasitic after the χ.

9. πτ supposed to come from *pj*, *bhj*, *bj*.

Theoretically it would be a probable conjecture that the labial consonants likewise united with *j* to form particular groups of sounds. It is true that above for good reasons we rejected the transition of a labial into the sibilant groups. But here we have to deal with a different conjecture. So far as I know, Ahrens ('Formenl.' 185) was the first to maintain that the τ of the labial present-stems like τύπ-τ-ω, βλάπ-τ-ω, κρύπ-τ-ω came from *j*. Others have since followed him, especially Christ ('Lautl.' 159), Grassmann 'Ztschr.' xi. 40,

and Ebel 'Ztschr.' xiv. 34. At first sight there is something very attractive in tracing back the forms adduced to the same principle of formation, as that on which *φρίσσω*, *ὄζω*, *στέλλω*, and *μαίνομαι* depend: and where the *π* belongs to the root the transition conjectured might well be defended. From an assumed *τυπ-j-ω* *τυπ-δ-j-ω* might have come just as *χδjες* from *χjες*, and then the *π* might have assimilated the medial *δ*, and in this way from *τυπ-δj-ω* might have come *τυπ-τj-ω*, and finally with a loss of the *j*, *τύπ-τ-ω*. Indeed under No. 382 we saw that *πτύ-ω* originates in just this way from a rt. *spju*, and we learnt to recognize the same change also on p. 498. In support of this explanation of *σκέπ-τ-ο-μαι* Ebel p. 40 well quotes Skt. *paç-jā́-mi*, Lat. *spec-i-o* (No. 111), though *túbh-jā-mi* can give us no help for *τύπ-τ-ω* (τυπ). For how are we to explain the process in cases where the root has an aspirate or a medial? According to the analogy of that very word *χθές* we should necessarily have expected from rt. κρυφ *κρυφθω*, and in the same way *ταφθω*, *τρυφθω*, *βαφθω*, *δρυφθω*, *ῥαφθω*, especially as *φθ* is a very common combination, and where a *β* belongs to the root, *βδ*, e. g. *νιβδω*, *βλαβδω* (cp. *γράβδην*), instead of the forms with *πτ*, which are the only ones found. The hardening of the *δ* to *τ*, or even the change of the *j* to *τ*, as Steinthal ('Charakteristik d. haupts. Typen d. Sprachbanes' p. vi) puts it, is an assumption, as we have seen before, entirely devoid of any analogy. The influence of the spirant *j* is, on the contrary, in all languages, a softening influence. But there is something more to be added. Although it is prevalently,
677 yet it is by no means solely in the case of labials that this *τ*, characterising the present stem, is found ('Greek Verb' p. 160 ff.). It appears clearly in *ἀνύ-τ-ω* and *ἀρύ-τ-ω*, the Attic by-forms of the older *ἀνύ-ω* and *ἀρύ-ω*. We have also *πέκ-τ-ω*, the somewhat late by-form of *πέκ-ω*, *πείκ-ω* (No. 97). Parallel to this *πέκ-τω* is the Lat. *pec-to* with its analogues *flecto*, *plecto*, *necto*, forms which are not at all analogous to such as *fac-i-o*, *jac-i-o*. If the *t* had come from *j*, we should necessarily have expected Gk. **πέσσω*, Lat. **pecio*, **plecio*. It is absolutely no argument against this explanation that the *t* in Latin extends beyond the sphere of the present-stem (*pec-t-en*), for we find the same occurring in *junctu-s* compared

with *jug-u-m.* — It is simpler again to regard *τίκ-τ-ω* (No. 235), which Grassmann with others wishes to explain by metathesis from *τι-τκ-ω*, as a present-formation with *τ*. The objection of Ebel 'Ztschr.' xiii. 268, that *ε* is thinned only before 'muta cum continua' is not at all well-founded, as will be seen on p. 711. — But finally, we have in Lithuanian an extensive class of verbs, the fifth of Schleicher's division, which distinguishes the present-stem from the verb-stem by the addition of a *t*, e.g. verb-stem *dris* (= Indo-G. *dhars*, Gk. θαρς No. 315) pres. *dris-t-ù*. We cannot imagine that this *t* has originated in Lithuanian from a *j*, because there is another class of verbs, the fourth, which shows this *j*, sometimes pure, sometimes in different transformations corresponding to the phonetic laws of Lithuanian. For the numerous analogies, which are found for the expansion of a root by *t*, whether this is only in the present stem, or, as in *ἁμαρ-τ-εῖν*, *ἁλι-τ-εῖν*, over a wider range, it is sufficient now to refer to my 'Greek Verb' pp. 163, 281. The extent of this formation is there precisely stated.

10. *μν* supposed = *μj*.

This transition has also been maintained by Ahrens ('Formenl.' 185), who endeavours thus to bring the present-stems like *καμ-ν* into the long list of the *j*-class: *κάμ-ν-ω* = *καμ-j-ω*; explaining by the same principle *Πολύδαμ-να* from *Πολυδαμ-ια*, *ἀπάλαμ-νο-ς* from *ἀπαλαμ-ιο-ς*, *νώνυμ-νο-ς* from *νω-νυμ-ιο-ς*. In none of these words is this explanation probable. The words with *ν* in the present stem are very simply connected with the nasal class: *τέμ-ν-ω*, *κάμ-ν-ω* like *πί-ν-ω*, Lat. *sper-n-o* like *si-n-o*. I may on this point refer to my 'Greek Verb' p. 178. The *ν* of *Πολύδαμνα* perhaps finds its support in the present stem *δαμνα* (*δάμναμαι*), or it belongs to the termination, which then would have to be regarded like *πότ-να* by the side of *πότ-νια*. *νώνυμν-ο-ς* is explained from the st. *ὀνομαν* (*ὀνομαίνω*): it is for *νωνυμ(α)ν-ο-ς*. *ἀπάλαμνο-ς*, perhaps for 678
ἀ-παλαμινο-ς, I cannot explain after any clear analogies. But it is impossible to support upon such an isolated word the assertion of a phonetic change, for which it is hard to find firm support in other languages either. Hence even Grass-

mann, who had hit upon the same idea as Ahrens, on p. 46 comes to the conclusion that a change of this kind cannot be established.

11. J as ι transposed into the preceding syllable.

We return finally to a phonetic process, which is universally recognized, and with which the only question can be as to its extent and its explanation. Good collections may be found in Christ p. 44, Leo Meyer i. 270 f., Pott ii². 741. For all the Greek dialects, with the exception of the Asiatic Aeolic, it is the rule that *j* — or ι, for any sharp distinction is here impossible, — after ν and ρ is transferred to the preceding syllable, in the form of ι: *μελαν-ja*, *μέλαινα*, *κερ-jω*, *κείρω*, Aeol. *κέρρω*. After other consonants this phonetic change is more rare, but by no means unknown. In *ὀφείλω* indeed we can explain the diphthong only by compensatory lengthening, because in the old alphabet it was denoted by E, as is proved by Brugman 'Stud.' iv. 120. The desire to distinguish *ὀφέλλειν* from *ὀφείλειν* has perhaps contributed to this irregularity. But we saw on p. 357 that *αἶλος* was the Cyprian form for *ἄλλος*, i. e. *ἀλ-jo-s* (Lat. *al-iu-s*)[1]. In the case of explosives, the phenomenon appears in some clear instances — and Hugo Weber ought not to have denied it so positively in his 'Etym. Unters.' i. 66 — as in *πείκ-ω* (σ 316)[2] by the side of *πέκ-ω* and *πέκ-τ-ω*, where perhaps the wish to distinguish the

[1] Probably the notice of the 'E.M.' belongs here also, *αἶλα· ἀντὶ τοῦ, καλά Κύπριοι* (p. 34, 10). We must write for *καλά ἄλλα* or *ἀλλά*. Or can the gloss have lost a κ, and fallen wrongly under *α*? *καιλά* would be the Cyprian form which we should expect for *καλά*=**καλja*.

[2] Möller, in his instructive and interesting essay 'Epenthese vor k-Lauten im Germanischen' 'Ztschr.' xxiv. 427 ff., has suggested for many phenomena belonging here the entirely new point of view, that a guttural, without the assistance of a following *i*, can produce by its own force an *i*-sound before itself. Hence he denies for many cases here discussed the previous existence of an ι in the following syllable. As *πλέκω*, *τέκος*, *ἐγώ*, *ἄγω*, etc. show, we can at most speak of a phonetic tendency, never of a phonetic law. But certainly many an ι hitherto inexplicable, e. g. that of *ἤνεικα* and *ὑγιής* finds thus an explanation. This subject requires further careful investigation.

word from *πέσσω* 'cook,' prevented the usual treatment of 679
the *kj*, and also in the stem *γυναικ* which in 'Ztschr.' iv. 216 I have traced back to *γυνα-κ-ι* = Indo-G. *ganakī*. The suffix *k*, originally hypocoristic (cp. *sen-e-c-s*), to which the feminine termination *ī* is appended, finds a confirmation also in the Persian *žan-a-k* 'muliercula' from the same stem (No. 128), as is proved by Schwabe 'De deminut.' p. 45. The apportionment of the two stems to the different cases was not so firmly established as it might seem from the prevalent usage. The comic writer Pherecrates (fr. 95) used the acc. *γυνή-ν*, and *αἱ γυναί* is also quoted from a comedian (Meineke 'Com.' ed. min. i. p. 106). — Further, after *γ* in the comp. *μεί-ζων* = *μεγ-jων*, Ion. *μέζων*, in the st. *αἰγ* for *ἀγ-ι* (No. 120) nom. *αἴξ* 'goat,' in *αἴγ-λη* 'brightness' (No. 41), inasmuch as this may with probability be referred to *ἀγ-ιλη*, as the Skt. *ag-ní-s* = Lat. *ig-ni-s* suggests. To be sure a form like *ἀγ-ιλη* has analogies only in masculines like *στρόβ-ιλο-ς*, *τρόχ-ιλο-ς*, to which we may add *αἶκλοι* (Hesych. *αἱ γωνίαι τοῦ βέλους*), discussed by Legerlotz 'Ztschr.' viii. 397, if it comes from *ἀκ-ιλοι* (cp. *aculeu-s*) and is to be referred to the rt. ἀκ (No. 2). In the same way *αἰχ-μή* 'spear-point,' with a χ which, as in *ἔγχ-ος*, has come from *κ* (p. 504), may be explained as for *ἀκ-ιμη*. We must probably take the word, which is common in Homer, and which can hardly be connected with *ἀΐσσω*, in the Homeric dialect always trisyllabic, as an adjective (used as a substantive), after the analogy of *ἄλκ-ιμο-ς*, *τρόφ-ιμο-ς*, *πόρ-ιμο-ς*. The stem-word would be *ἀκ-ί-ς* 'point,' and *ἀκι-μη* would properly be 'the pointed.' So also Pott W. i. 516. Joh. Schmidt 'Vocal.' i. 76 adds Lith. *ęszma-s* 'javelin.' In two more words beginning with the same letters, we may conjecture that the origin of the diphthong was the same. The first is the Laconian *αἶκ-λο-ν* or *αἶκ-νο-ν* 'supper,' if any one chooses to be bold enough to connect it with the Skt. *aç* 'to eat,' *áç-a-na-m* 'eating,' 'food.' We may recall also the Homeric *ἄκ-ολο-ς* 'bit' (*ρ* 222) mentioned on p. 114[1]. — The case is much the same with *αἰκάλλειν* 'blandiri' and *αἴκαλο-ς κόλαξ* (Hesych.). The root of these

[1] Baunack 'Stud.' x. 78 collects a long list of kindred glosses, among them *συν-αικ-λία* (Alcman), *ἀν-αίκ-λ-εια· ἄδειπνα*, *εἶκ-λο-ν· δεῖπνον*, *ἶκ-να· τροφεῖα*.

words seems to occur in *ἀκεῖσθαι* 'heal' (Delph. *ἐφακείσθαι* 'C. I. G.' 1688 l. 37), *ἧκα* 'gently,' 'softly,' *ἀκέων* 'silent,' *ἄκασκα* ['gently,' Bergk on Pind. 'Pyth.' iv. 276] *ἀκασκαῖος* ['gentle,' Aesch. 'Ag.' 741] (Fick 'Ztschr.' xx. 173). *αἴκ-αλο-ς*, from which *αἰκάλλω* is derived, would be for *ἀκ-ιαλο-ς*, as *κραιπάλη* is conjecturally for *κραπ-ιαλη* (No. 41). As *-αλο* is a diminutival suffix (Schwabe p. 78), *κραιπάλη* might be the dimi-
680 nutive of a lost *κραπια* (cp. *μανία*), and *ἀκ-ιαλο-ς* the adjectival diminutive from *ἀκ-ιο-ς* (cp. *ἄγ-ιο-ς*). The Lat. *crāpula* is evidently a borrowed word. A similar suffix apparently occurs in *ἠπίαλο-ς* 'fever.' — After a *π* we notice the same process in *ἐξαίφνης* with aspiration (p. 502) for *ἐξαπίνης*, *αἰφνίδιος*, etc. (cp. *ἄφνω*, *ἀφνίδιος* Hesych.), in *κραιπνό-ς* for *κραπ-ινο-ς* (No. 41), in *δεῖπνο-ν* for *δεπ-ινο-ν*, *δαπ-ινο-ν* (Lat. *dapinare* No. 261). — *σκοίψ· ψώρα* (Hesych.) has already been compared by Lobeck 'Paralipp.' 113 with *scab-ie-s*. It might easily be for *σκοφ-ι-ς*. — In the case of *ῥοῖβ-δο-ς*, *ῥοῖζο-ς* we learnt on p. 650 to see still more clearly that an *ι* has made its way from the termination into the stem-syllable. — Finally it seems that even the dental consonants cannot be entirely excluded. For with regard to the diphthong in forms like *φέρεις* for *φερ-ε-σι* = Skt. *bhár-a-si*, and *φέρει* for *φερ-ε-τι* = Skt. *bhár-a-ti*, the theory, according to which *φερ-ε-σι* first became *φερ-ει-σι* and *φερ-ε-τι* *φερ-ει-τι*, deserves the preference over others if only because *ει* belongs to all the Greek dialects, including the Doric, while the change from *τι* into *σι*, which has been assumed by some in order to get thereby to a simple *ι* (*ε-τι*, *ε-σι*, *ε-ι*) is entirely unknown to the Dorians. Cp. 'Greek Verb' p. 140 ff. No one can fail to see too that *κρείσσων* has come from *κρετ-jων*, from which the later Ionians and a portion of the Dorians (Ahrens 'Dor.' 188) formed *κρέσσων* [1]. The diphthong appears just as plainly in connexion with *σ* in *χραισμ-έ-ω* for *χρᾱσιμ-ε-ω* (*χρήσιμο-ς*). Whether *πλαίσ-ιο-ν*

[1] At first sight the forms *κρέσσων*, *μέζων* might seem older than the Attic forms. But probably they owe their origin only to that disinclination to the connexion of *ει* with double consonants, in consequence of which *ἀπόδειξις* in New Ionic became *ἀπόδεξις*. The inscription from Chios (Cauer 133) furnishes in l. 16 the hitherto unknown *ἀποδέκνυντες*.

'square' for *πλαθ-ιο-ν* belongs to the st. *πλαθ*, *πλάθ-ανο-ν* 'platter' (No. 367 b) may be left undecided. In some of these cases recourse has been had by some to the device of regarding *αι* as merely a 'strengthening' of *α*. But for this process, which would be quite inconceivable in the case of a long *α*, the only support is to be found in the reduplicating syllables of *δαι-δάλλω*, *παι-πάλλω*, etc. which are themselves puzzling enough.

If this be, generally stated, the extent of this phonetic phenomenon, we have now to consider the way in which we should regard it. The question is whether it should be viewed as *epenthesis* or *metathesis*. Epenthesis is a phonetic process extremely widely prevalent in Zend, as is shown by Bopp 'Vgl. Gr.' i². 70, Justi p. 359. The *i* or *j* of the following syllable makes the *a* of the preceding into *ai*: Skt. *bháv-a-ti* 'he is,' Zd. *bhav-ai-ti* (cp. *φύ-ει[τι]*), Skt. st. *madhja* (*medius*), Zend *maidhya*. In the same way *u* and *v* change the *a* of the preceding syllable into *au*, Skt. *sar-va* 681
'whole,' Zd. *haur-va*. With the Zend epenthesis the German *Umlaut* agrees, except that in the latter the *i*-element of the termination is not added on to the vowel of the preceding syllable, but assimilates it to itself: OHG. *vatar* pl. *vetir* (Grimm 'Gr.' i³. 555, Schleicher 'Die deutsche Sprache' p. 144, Rumpelt § 45). A 'much older epenthesis' in the Teutonic sphere, e. g. in Goth. *hail-s* = *kalja-s* is treated of by Scherer 'Z. Gesch. d. deutschen Sprache[1]' p. 472. In Irish epenthesis is very extensive, and increases in the course of time; e. g. OIr. *laig-iu* 'minor' = *ἐ-λάσσων*, *aile* = *aliu-s* Cypr. *αἶλο-ς*, *berid* for *bere-ti* = *φέρει*; it is sufficient here to refer to Zeuss[2] p. 4. Moore's 'Windisch' § 16 ff. In modern Greek, as Deffner 'Stud.' iv. 270 shows (but only, as he tells me in a letter, before the palatal sounds *j*, *k*, *ch*), new diphthongs are developed by an 'anticipated' *ι*: *μάιχι* = *μάχη*, *ὁίχι* = *ὄχι*, *οὐχί*. This phonetic change may well be called 'anticipatory sound' (*Vorklang*), inasmuch as the sound of the following syllable is naturally prepared for in the preceding syllable, by the speaker who has the whole of the word in his mind. According to the more recent views the consonants are always cooperating factors in epenthesis

(Sievers 'Lautphysiologie' p. 143). In juxtaposition with *i* these become *mouillés*. For Greek however these processes escape our more precise knowledge.

According to these analogies I believe that in Greek also we must regard an *ι* of this kind as in all cases the anticipation of an *ι* or *j* which was from the first justified in the subsequent syllable. It is true that there are only a few instances in which the *i*, which would thus be expected, is actually found to exist in both syllables, viz. only four, the not very common *εἰνί* from *ἐνί*, which however is well authenticated five times in Homer in the formulas *εἰνὶ θρόνῳ*, *εἰνὶ θύρῃσι*, the two comparatives *κρείσσων*, *μείζων*, which warrant us in inferring **κρειτ-jον*, **μειγjον*, and finally *πλαίσιον*, though this is perhaps not very certain. We might possibly add *αἱρέω*, discussed on p. 557, if it points back to *ϝαρ-jω*. In all the remaining instances of this phenomenon, i. e. in the numerous feminines in *-αινα*, *-εινα*, *-αιρα*, in the presents in *-αινω*, *-εινω*, *-αιρω*, *-ειρω*, and in comparatives like *ἀμείνων*, *χείρων* the *i* has disappeared from the subsequent syllable. Perhaps this disappearance is to be explained psychologically. The speaker feels instinctively that this sound ought not to be sounded more than once in the single form, and so, after it has been anticipated, he drops it in the second syllable. Siegismund in his investigation of metathesis in
682 'Stud.' v. 126 ff. starts from similar considerations. It is well known from Teutonic languages that the so-called 'Umlaut' did not become very common, until the special cause of the phonetic change, the *i*, had disappeared from the subsequent syllable: OHG. *trâgi*, MHG. *traege*, OHG. *mohti*, MHG. *moehte*.

We may refer here also to the parallel epenthesis of *u*. The disfavour, which is now shown to all sporadic phonetic affections, has induced some scholars to deny this altogether. But three forms hardly admit of another explanation. The Homeric *πουλύ-ς* (*πουλύ-ν*, *πουλύ*) is quite parallel to *εἰνί*. Anticipation with a loss of the *u* in the subsequent syllable is shown in *ἐλαύνω*, i. e. **ἐλα-νυ-ω* ('Greek Verb' p. 171), in the words discussed on p. 567 f. *μαῦρο-ς* (*ἀμαυρό-ς*), *παῦρο-ς* (?), *νεῦρο-ν*, and in *γεύνων*, i. e. **γενυ-ων*· *γονάτων* Hesych.

mentioned under No. 137. On the other hand forms like *γοῦνα*, *δουρί*, *οὖλο-ς* ('whole' = Skt. *sárva-s*) may just as well have arisen by compensatory lengthening from *γονϝα* (*γόννα*), *δορϝι*, *ὁλϝο-ς*, and this view we preferred on p. 569. If we possessed inscriptions in the alphabet in use before Euclides, which contained these forms, the question would be settled at once, according as *OY* or *O* was written in them.

That the *ει* of *φθείρω*, *κτείνω*, etc. did not originate, as Meunier 'Révue Critique' 1869 p. 246 conjectured, in the way of compensatory lengthening, but is to be regarded as a genuine *ει*, is proved not only by the parallel *αι* of *καθαίρω*, *ὀνομαίνω*, which absolutely excludes such an explanation, but also by the fact that the Dorians also had the diphthong in this place: *φθείρω* or *φθαίρω* (cp. a grammarian in Ahrens 'Dor.' 186), *ΣΠΕΙΡΕΝ* Cretan (C. I. G. No. 2556, l. 18: 'Greek Verb' p. 213). If the length of the stem-syllable was due to compensatory lengthening, it would necessarily have been **φθήρω*, **σπήρεν*. — For *ὑπείρ* = Skt. *upári* cp. p. 290 [1].

[1] The attempt to explain the diphthongs of *τείνω*, *φθείρω*, etc. by compensatory lengthening is repeated by Frankfurter in his doctoral dissertation 'On the Epenthesis of *j* (*ι*) *ϝ*(*υ*) in Greek' Göttingen 1879. But there are absolutely no Old Attic forms without *ι*, to justify the opinion that the diphthongs are in a large part of the cases hitherto explained by epenthesis, e.g. in the present forms in *-ειρω* and *-ειρω*, and in the feminines in *-ειρα*, only 'late Attic.' ΣΠΕΡΑΣ quoted on p. 40 does not belong here at all, for in 'C. I. A.' i. 322 a, 64 it is the acc. plur. of the substantive *σπεῖρα*. Even the aorist of the same form, if it was authenticated by inscriptions, would of course prove absolutely nothing for the present. On the other hand the Cretan ΣΠΕΙΡΕΝ cannot possibly be set aside offhand, as is done on p. 40, for ΕΙ as the lengthening of *ε* is, as every one knows, quite foreign to strict Doric. The Lesbian *σπέρρω* would necessarily have been **σπήρω* in Cretan, if the Cretan form had really originated from the Lesbian. But why could not *σπέρρω* have come from *σπερ-jω* in one dialect, and *σπείρω* in another by epenthesis? The Cyprian *αἶλος*, which cannot be argued away, beside the ordinary Greek *ἅλλος*, proves that the Greek dialects did not all proceed in the same way in this case. Frankfurter p. 34 remarks that in l. 26 of the inscription from Idalium *ἰναλαλισμένα*, said to be equivalent to *ἐναλλαλισμένα* (from **ἐναλληλίζω*) damages the authority for this *αἶλος*: but he forgets that this form has more recently been explained

E. Interchange between the spiritus asper and lenis.

Whether physiologically or historically considered, the spiritus asper cannot take rank with the other consonants. We have seen above that physiologists regard it as an element in which the qualifications of consonants proper are wanting. When however we trace the history of the aspirate we find that in its Greek form it is always the residuum of an ante-Hellenic spirant — whether *s*, *v* or *j* — which still existed in the Graeco-Italic period. But the aspirate was itself on the wane
683 from the earliest period of the Greek language of which we have any record. For even in the old alphabet, which employs the letter *H* to denote the aspirate, this sign is occasionally absent, and most often in the article *O* instead of *HO*, e. g. in the Locrian inscription from Oianthea A l. 6. A large number of such omissions are mentioned by Cauer 'Stud.' viii. 232 ff. from Old Attic inscriptions, ἧς = ἧς, ὅπως = ὅπως, ἕκαστος, ἡμερα, Ἑλληνοταμίαις. And if the Ionian alphabet, which, — doubtless after it had been long in use in Ionic Asia Minor — was brought to Athens at the time of the Peloponnesian war, and there brought into public use in the year 403 B.C., had no sign at all for the aspirate, we may no doubt infer from this, that from this time onwards the spiritus asper was as a rule heard less distinctly, and for this reason deemed unworthy of a place among the consonants proper. No doubt to go a step further, and maintain that from this time onwards there was, as in modern Greek, no difference at all between

otherwise by Ahrens ('Philol.' xxxv. 71), Bergk and Siegismund 'Stud.' ix. 106) unanimously, and has certainly nothing in common with ἄλλος. — On p. 28 Baunack and I are blamed, because in discussing εἶδαρ 'food,' we did not take into account the by-form ἔδαρ. But, though this form does occur in Hesychius (ἔδαρ· εἶδαρ), seeing that it is found elsewhere only in grammarians as an auxiliary form for the etymology of εἶδαρ, which is the only form actually in use, its authority is extremely weak. Choeroboscus, or rather, as Lentz supposes, Herodian copied by him, did *not* know ἔδαρ as a living Greek word, as is plain from his rule as to τὰ εἰς αρ οὐδέτερα (Herodian ii. 769 ed. Lentz): for among the exceptions to the rule that the words in αρ gen. ατος were naturally long in the penultimate, ἔδαρ does not occur.

the spiritus asper and lenis, is a course that is impossible in the face of the influence which, in spite of isolated exceptions and aberrations on inscriptions, the spiritus asper exercises on the whole with perfect consistency on preceding tenues (*ἀφ' οὗ, ἐφίππιος*). Moreover in many districts of Greece, especially in Tarentum and Heraclea (Kirchhoff 'Stud. über d. gr. Alphabet[3]' p. 146), the sign ⊢ was for a considerable time used for the spiritus asper. And how are we to believe that the grammarians, when they matured the doctrine of the *πνεύματα* and introduced new signs for them into the cursive alphabet, arrived at such a doctrine, if they had not the elements and data for it in the Greek of their time? But for all this the history of the *representation* of the aspirate, especially the early loss of the old letter for it, which was borrowed from the Phoenicians, and the grammatical distinction of the *πνεύματα*, as something falling under the head of *προσῳδία*, has an important bearing on the history of the sound itself. The Asiatic Aeolians, who were peculiarly *ψιλωτικοί*, and the Ionians, who allowed the aspirates no influence upon the preceding tenuis after an elision (*ἀπ' οὗ, κάτοδος*), evidently took the lead in the weakening of the aspirate. Indeed even in Homer we find forms like *ἧδος* by the side of *ἡδύς*, *οὖλος* by the side of *ὅλος*. The expulsion of the spiritus asper began in the earliest period of Greek and certainly became more and more general, until it has in modern Greek become universal. The language cannot have been far from the latter state at the time when the grammarians thought it necessary to have lists of words and introduced 684
their artificial rules[1] to teach the correct use of the spiritus, a movement in which Herodian notoriously took the lead. The destinies of the spiritus asper in Greek therefore, in spite of the completely different origin of the two elements, do not differ essentially from those of the *h* in Latin and the Romance languages. We find here, however, a phenomenon, which is instructive for Greek as well. Not only does the

[1] This system of the old grammarians is discussed from the standpoint of Lobeck's school, by Aug. Lentz 'Pneumatologiae elementa,' 'Philologus' erster Supplementband p. 641–776.

aspirate become volatile and disappear pretty early from its original place: *eredes* ('C. I. L.' No. 1034) cp. above No. 189, but it makes its way to positions to which it has no right at all. Hence Catullus's ridicule of *hinsidiae* and the like [Carm. lxxxiv.: cp. Quinct. 'Inst.' i. 5]; and such mistakes led gradually to such erroneous forms as the ill attested *humerus* for *umerus* (No. 487), *humor* for *umor* (No. 158). Cp. Fleckeisen '50 Artikel' p. 31. The same thing has happened in the Romance languages, where the rejection of the *h*, in actual speech at least, has become the rule, while the prefixing of an irrational *h*, whether it be in actual speech, or in a way of writing that points to an older pronunciation, is by no means rare (Diez 'Grammatik' i. 370, 452): Span. *hedrar* = *iterare*, Fr. *haut* = *altus*. Attention may be directed in this respect to the numeral eight, which shows, not only in the Fr. *huit*, to which we shall return at p. 688, but also in the modern Persian *hest*, and in the Heraclean ὁκτώ (Ahrens 'Dor.' 36) an aspirate of late introduction. In Irish too we meet an *h* before initial vowels that has no right to be there, and was only subjected to rules at a later time (Windisch 'Irish Grammar' E. T. § 107). We meet with the same phenomenon in vulgar English and in some parts of Germany, where aspiration has become confused. It seems then to be a law of language that when aspiration begins to lose ground it makes its way occasionally to the wrong place. And this is important for the treatment of the Greek spiritus. If the asper began early to retire from the language, and if this fact is completely established, we shall not need in each single instance to seek for some etymological ground for the change, but must simply regard the phenomenon on the whole as a confusion. From such injuries as these no language is quite secure. We must accordingly recognize them as such, and distinguish them from regular phonetic formation.

685 We will now consider the cases in which

(1) the spiritus lenis takes the place of the asper.

Comparisons of undoubted correctness establish the origin of the lenis from the asper in a not inconsiderable number of stems. We find now and then individual forms retaining the

asper side by side with the lenis. Let us take first those cases in which the spiritus asper represents an original *s*, which here and there actually occurs in by-forms by the side of the asper and the lenis, so as to bring all the three successive steps in the history of the sound clearly before our eyes.

To this class belong the copulative *ἁ-* (No. 598), by the side of which the form *ἀ-* (*ἀ-θρόο-ς*, *ἄ-πας*) survives, along with the related *ὁ-*, both going back to the Skt. *sa*, *sam*, 'with;' *ἁλέα* 'the sun's warmth' (Att. *ἀλέα*), which has been discussed at p. 552 in its relation to *εἴλη*, *ἑλ-άνη*, and the rt. *var*; *ἁμός*, *ἁμόθεν* by the side of the better preserved *ἀμός*, *ἀμόθεν* (No. 600).—Bugge ('Bezzenb. Beitr.' iii. 120) shows that *ἄτερ* and *ἀτάρ* also get their spiritus lenis from an original spiritus asper, *ἄτερ* corresponding to the Germ. *sonder* ('separate'), *ἀτάρ* to *sondern* ('but'), so too the Skt. *sanitús* or *sanitúr* 'beyond,' 'without,' *sanutár* 'away' (cp. *ἄνευ* 'Pet. Dict.'). The nasal is wanting in the Gk. form as in *ἑκατόν* etc. It is remarkable that we thus get two synonymous sts. *sa*, one of which (Gk. *ἁ*, *ἀ*, *ὁ*) means 'with' and the other (Gk. *ἀ*) 'without.'—*ἄ-ω* 'satiate' by the side of *ἄ-δην*, and *ἄδδην* (cp. p. 649) from the root preserved in the Lat. *sa-tur*, *sa-tis*, OIr. *sáith* ('satietas'), and the Goth. *sath-s* 'full,' to which Pott ii². 853 adds also the ChSl. *sy-tŭ*, Lith. *sŷ-tu-s* 'full.' — *ἔδαφος* 'bottom,' 'soil' cannot be separated from *οὖδας*, which likewise has the lenis, but was assigned at No. 281 to the rt. *ἑδ* = Skt. *sad* 'go' (*ὁδ-ό-ς*), Whether the lenis is due to the effect of the following aspirate, as seems to be the case in *ἕδ-ε-θλο-ν* 'seat' by the side of *ἕδος* (No. 280), is rendered doubtful by *οὖδας* and by *ὀδός*, *οὐδός* 'threshold.' No satisfactory explanation of the *ου* in these words has yet been given. There are no clear traces of a rt. *vad* (Lat. *vādere*), suggested by Hugo Weber ('Ztschr. f. Gymn.' 1864 p. 518, cp. above p. 473). — That *εἴρω* = *sero* comes from the rt. *sar*, the sibilant of which is preserved in *σειρά*, and appears in the form of the spiritus asper in *ὅρμος*, has been established at No. 518. — *Ἐρινύ-ς* in its relation to the Skt. *Saraṇjū-s* was discussed at No. 495, *ἑτεό-ς* = *satjá-s* along with *ἔτυμο-ς* at No. 208. The loss of the sibilant clearly took place long before Homer's time, as is shown e.g. by his

ἄ-λοχο-ς, which no one doubts was derived from ἀ, *sa* and the rt. λεχ (No. 173). The reduplicated ἐτ-ήτυμο-ς finds in εἴρερος (at No. 518) a complete analogy. — ἰκ-μά-ς has been referred at No. 24 b to a rt. *sik*, to which, as is shown by Clemm 'Studien' ii. 45, ἰχώρ 'juice, the blood of gods,' also belongs. — Whether ὀπό-ς 'juice' belongs to the words σαφής, σοφό-ς, and the Lat. *sap-or* discussed on p. 512 is uncertain. At p. 551 on No. 662 we discussed the Ionic οὖλο-ς by the side of ὅλο-ς = Skt. *sárva-s*, Old-Lat. *sollu-s*, and on No. 506 ὀρό-ς by the side of the Lat. *serum*. — In the reduplicated forms too where the stem begins with σ, the spiritus asper appears only in a few isolated traces (ἀφέσταλκα Giese 'Aeol. D.' 405,
686 Keil 'Schedae epigraphicae' 10); elsewhere, e. g. in ἔσταλκα, ἔσπαρται, the lenis appears.

We may here consider the cases in which the original *sv* has left behind it only the lenis in the place of the asper which we should expect to find by the side of ϝ. So the Hom. ἄσμενος, ἥδος by the side of ἥδομαι, ἡδονή, ἀνδάνω No. 252, ἔθος, ἦθος, rt. ἐθ for σϝεθ No. 305, where we may discern (Christ 135) in the aspirate in the second syllable the reason for the abandonment of the asper in the first, just as we thought we could in ἤθ-ω 'sift' = σήθω (No. 571), ἰδ-ί-ω No. 283 by the side of ἱδρός, ἱδρώ-ς from the rt. *svid*, ἴδιο-ς No. 601 by the side of the st. ἑ, σϝε. — ἔτης 'relation,' 'townsman,' had the digamma in Homer (Knös 221), and is written with the digamma in the Elic inscription 'C. I.' No. 11. Since the word, as is conjectured by Benfey ii. 202, belongs to the pronominal st. ἑ (No. 601), the latter bears to ἔτη-ς the same relation that ἵστωρ does to the rt. ϝιδ. On this word we can now refer to Ludwig Lange's thorough investigation 'De ephetarum Atheniensium nomine' Leipz. 1874, especially p. 11 ff. In meaning ἕταρος, ἑταῖρος correspond, but the fact that no trace of a ϝ is to be found in these words makes against their relationship. Bezzenberger 'Beitr.' iv. 328 is for referring ἕταρος, to which ἑταῖρος bears the same relation as λοίσθιος to λοῖσθος, to the rt. *sak* (*sequi*, ἕπομαι), its *k* being for no visible reason here represented in the same dialect sometimes by π, sometimes by τ. I cannot believe this. If the Attic address ὦ τᾶν (also ὦ 'τᾶν) has anything to

do with ἔτης, Lange's theory that *ἑτᾶν is an expansion of the st. ϝετα like μεγιστάν from μέγιστος is the most probable one.

A simple ϝ passes, as Kuhn shows 'Ztschr.' ii. 132 (cp. Christ p. 185 f.), in the majority of the cases belonging here, into the spiritus lenis. There is however a certain amount of probability, that in all cases the asper formed a stage in the transition. It is not surprising therefore to find that this stage has often been preserved, and indeed that sometimes this is the only form found, as in the case of ἕσπερο-ς = *vesper* (No. 566), ἑκών (No. 19), ἑστία (No. 610), while sometimes usage varies between the two breathings. So we find by the side of ἕννυμι, εἷμα (No. 565)—perhaps on account of the θ in the following syllable—ἕσθος, ἐσ-θή-(τ)-ς from the rt. ϝεc, and by the side of ἰδεῖν and all the related words (No. 282), the remarkable isolated ἵστωρ, as to the aspirate of which the ancients were very doubtful (Lentz *op. cit.* p. 700), and the originally Ionic ἱστορία, ἱστορεῖν.

We have seen on the other hand that the regular representatives of a *j* are ζ and the spiritus asper. But in dialectic forms we meet with the lenis too in the same position. This is the case with ἄγεα· τεμένη, ἀγέεσσι· τεμένεσι (Hesych. ed. 687
M. Schmidt), words which undoubtedly belong to the rt. ἀϝ = Indo-Germ. *jag* (No. 118), and also with the Aeol. ὔμμες by the side of the ordinary Greek ὑμεῖς (No. 607), and in ὅττι in Sappho (Ahr. 26) from the pronominal st. ὁ = Skt. *ja* (No. 606), with which may be classed the old particle ὄφρα, whose correlative τόφρα leaves no doubt as to the origin of the ὁ from ὁ. Here, as in one or two cases discussed above, the aspirate seems to have been prejudicial to the asper. As regards the second component of the particle, perhaps Thiersch 'Gr.' § 316, 14 was near the right explanation of it in taking ὄφ-ρα to be compounded with ῥα = ἄρα. Anyhow γάρ and τάρ, which was regarded by the old grammarians as a single word, are without question compounded with ἄρα. Only we have no right to regard the φ as a 'hardening' of the spiritus asper. Perhaps ὄφ-ρα is for ὀφι-ρα like the Homeric τί-πτε for τί ποτε. ὀφι would be an old form with the suffix -φι, like θεό-φιν, νόσ-φι, ἶ-φι, and the Lat. *i-bi*, *u-bi*[1].

[1] This explanation is opposed by Lange 'Ztschr. f. S. G.' 1863 p.

We shall return at p. 709 to *ὄψο-ν* in its relation to *ἕψω*.

We now come to the opposite case—that of

(2) the spiritus *asper* where we should expect the *lenis*.

The old grammarians describe the Attics as *δασυντικοί*. The frequent occurrence of the asper in this dialect in cases where all others have a lenis, has been discussed with much insight by Giese 'Aeol. D.' 304 ff. and elucidated especially by Keil in his 'Schedae epigraphicae' p. 6 ff. by an abundance of matter, drawn for the most part from inscriptions. Among the examples given are some where the spiritus asper has the support of old tradition, especially[1], taken alphabetically, *ἑλπ-ί-ς*, where the *ϝ* is established (No. 333), *ἕνη* (*σ* No. 428)
688 *ἕχω* (*σ* No. 170), '*Ἱλισσός* (*ϝ* rt. *ϝελ*, *ἵλιγξ* No. 527, cp. *ὅλ-μο-ς*, *εἴλλω*, *ἑλκύω*), *ἴσος* and *ἐφ' ἴσης καὶ ὁμοίας*, *ἐφ' ἴσῃ* (*ϝ* No. 569), and of examples from other dialects, there is the above-mentioned *ἕ-σταλκα* and also the common *ἕτος* with *καθ' ἕτος* (so too the ModGk. *ἐφ' ἕτος* 'in this year'), *δωδεχέτης*, *ἐννεακαιδεχετίς* Inscr. Halicarn. in Wescher 'Revue Archéolog.' 1864 p. 135, *πενταέτηρίδα* (by the side of *ϝέτος* cp. No. 210) 'Tab. Heracl.' i. 57, *ἴδιος*, *καθ' ἰδίαν* Keil 'Inscript. Thessalicae tres' p. 10 (*ϝ* No. 601). — On the other hand there can be no doubt in other cases that the spiritus asper has crept in irregularly, in the Locrian *ΗΑΓΕΝ* (No. 117), *ἀκούσιος* (*ἀν* priv.), *ἀλώπηξ* (No. 525), and likewise in the non-Attic *ἀκρός* 'Tab. Heracl.' i. 65, Wachsmuth 'Rhein. Mus.' xviii. 539 (No. 2),

302 and Hugo Weber 'Ztschr. f. Gymn.' 1864 p. 128. Both find an objection in the meaning. But the Lat. *dum* too tallies with *tum*, although the latter denotes point of time, the former duration, and the apparently superfluous *ἄρα* becomes less surprising, if we consider that *ὄφρα* and *τόφρα* are almost peculiar to epic diction, in which *ἄρα* is readily annexed to words, and has but little force. Lange conjectures that *-φρα* comes from *πάρα*, and thus we should get the very suitable meaning *παρ' ὅ*. But where can we find another instance in Greek of a preposition placed after its case and coalescing with it so as to form one word?

[1] Cauer 'Stud.' viii. 235 ff. has shown that in the Attic inscription given at 'C. I. A.' i. 324 there occur some very strange forms and great inconsistencies. For this reason I have here omitted the irregular breathings that are attested only by this inscription.

ἐννέα 'Tab. Heracl.' i. 36 etc. (No. 427), εἶδον = ἐ-ϝιδ-ο-ν, ὀκτώ 'Tab. Heracl.' i. 48. — If we now pass from these examples of the sporadic appearance of the spiritus asper to those of the occurrence of the asper in ordinary Greek where we should expect the lenis, the question arises, are we in each single case to seek for a special ground for it, or to content ourselves instead with the recognition of the existence in general of a certain confusion? Our desire to find fixed laws in language wherever we can, inclines us to the former course. But what do we gain, here or in other like cases, when from a large number of instances we undertake to explain here and there one, and that with difficulty, and find a number of cases left, for which our explanation will not hold good, and in which we have after all to recognize an aberration of the linguistic sense? And such is necessarily the case here. The asper has above all regularly introduced itself before every initial υ. But who can give any other reason e.g. in ὕδωρ (No. 300), ὑπό (No. 393), ὑπέρ (No. 392), ὕστερο-ς (No. 251 b), for the aspirate, which the related languages proved to have been wanting to the original initial, than the fact that the vowel υ liked the asper? Just this vowel and no other took it: the old ου of the Boeotians had the lenis: οὔδωρ (Ahrens 'Aeol.' 169), hence the Locrian ὐδρία (Allen 'Stud.' iii. 257)[1]. The case is the same with ἡγεῖσθαι (cp. Lacon. Ἀγηΐστρατος, Theb. Ἀγήσανδρος Beermann 'Stud.' ix. 49), which no one thinks of separating from ἄγειν (No. 117)—by the side of which we get the very rare ἅγειν mentioned above—especially as the de- 689
rived verb now and then itself shows the lenis: Ἀγήσανδρος, Ἀγησίλαος, Ἀγησίπολις, ἀγήτωρ, Att. Ἀγησίας (Lentz p. 692). Of ἅπτω in its relation to ἀπήνη, ἠπήτρια we treated on p. 510. It is true that in a certain number of cases of this sort Kuhn ('Ztschr.' ii. 260) and after him Christ (109), and similarly Savelsberg 'Ztschr.' vii. 380, have sought to prove that this spiritus asper at the beginning of the word springs from a

[1] The work of Süpfle 'De l'h initiale dans la langue d'oil' Gotha 1867 contains an interesting collection of matter on the subject of aspiration before certain groups of sounds. The *h* of the Fr. *huile*, *huit*, of the Span. *huebra* (*opera*), *huevo* (*ovum*), discussed by Diez i. 370, forcibly reminds us of the Greek spiritus asper before υ.

spirant which has been displaced from the middle. So ἡμεῖς (Aeol. ἄμμες) = Skt. *as-mát*, ἧ-μαι from the rt. *ās* (No. 568), εὔ-ω from εὐσ-ω (No. 610), ἵ-μερο-ς from ἰσ-μερο-ς (No. 617), ἱερό-ς from *isara-s* (No. 614). Kuhn holds that the sibilant first changed to *h* and then went from the middle of the word to the beginning. He accordingly assumes not only forms like εὐώ, ἱέρος, which at all events find counterparts in Laconian interaspirated forms, but even ἀhμες, ἠhμαι, to which there is nothing analogous anywhere. It is extremely improbable that the Greek spiritus asper ever had a place before any consonant but ρ[1]. Then there are other difficulties besides. In the Dor. ἄμές, and in the Attic ἡμεῖς the vowel owes its length, as is shown by the Aeol. ἄμμες, to the dropping out of the σ. On their showing this loss has had effect twice over, once at the place where the letter stood at first, and again at the beginning of the word to which it has been transported. Further, what explanation is to be given of ἧσται, ἧστο, where the σ occurs *as well as* the initial spiritus asper, which was supposed to owe its existence to the transformation and displacement of the σ? Kuhn (275) takes refuge in the 'analogy of the other forms.' But the third person is certainly more frequent than the first, the singular and plural of which along with the third pl. alone come in for consideration. Besides εὔω (No. 610), a by-form of εὔω, the form εὔστρα also has the asper. There is no difference of initial between αὐστηρός and αὐαλέος. And how is it that we do not find εἰμί too, for the σ was dropped just in the same way? No one surely will appeal to the entirely isolated εἰμί which does occur in a Theraic inscription (Keil p. 10). In no case then can there be said to be a law of the kind mentioned above: it is at most only a phonetic tendency confined to a small circle of words. On the unsuccessful attempts to explain the spiritus asper in εἵμαρται I may refer to my 'Greek Verb' p. 361 and above p. 331. That the asper of the Boeot. ἰών = ἐγών (Apollon. 'De pron.' 51 Schneider)—a word which is moreover found with the lenis as well (Ahrens 206, cp. Ital. *io*)—has

[1] The extraordinary ΜΗΕΙΞΙΟΣ = Μίξιος (gen. of the proper name Μῖξις) on the Corcyraean inscription treated of by Bergmann 'Hermes' ii. 136 is entirely isolated.

anything to do with the expulsion of the *F* or with the *h* in the Skt. *ahám*, is the less credible from the fact that the comparison of the Goth. *ik* decides in favour of *g* as the original 690
letter, whence it results that no aspirated sound or *h* existed in the word from the beginning. I prefer in all these cases to admit for Greek the existence of an aberration which can be explained from the history of the language on the analogy of that above shown to exist in Latin and the Romance languages. Disturbances of phonetic laws declare themselves mostly by dialectic deviation. This is the case with the phenomenon we are now discussing. We often find that some dialect shows the lenis, especially the Aeolic of Asia, though it has not entirely lost the asper: *ἄμμες*, Homeric *ἄμμε*, Aeol. *ἀγήσαιτο*, *ἅρμα* (No. 488), *Ἁρμοξίδαμος* (Ahr. 'Aeol.' 29), *ἵππιος*, Tarentine *Ἵκκος*, Sicelian *ἱπνή· ἐφιππίς* by the side of *Γλαύκιππος*, *Δέρκιππος*, *Λεύκιππος* (cp. p. 462), Elic *ἐπίαρος* (Ahr. 'Aeol.' 226). Sometimes it is only the Attic, a dialect readily inclined, as we have seen, to the aspirate, that has it: e. g. in *ἑώς*[1] = Ep. *ἠώς*, Dor. *ἀώς*, Lesbian Aeol. *αὔως* (No. 613). In *ἥλιος* (by the side of *ἀπηλιώτης*, *ἀπήλιος* cp. Lobeck 'Ad Ajacem' ed. ii. p. 356) = Ep. *ἠέλιος*, Cret. *ἀβέλιος*, Dor. *ἀέλιος* (No. 612) the Attic is supported by the agreement of the New-Ionic, but etymology establishes the priority of the lenis. In the two last-named words the dialectic forms prove that of the original stem-syllable *αὐσ* (cp. *aur-or-a*, i.e. *aus-os-a*) first the *σ* disappeared, and then the *υ* which is the softened *F*. Hence there can be no question here of transposition of the *σ*. By the side of *ὄρϝος*, *ὄρβος*, Ion. *οὖρος* (discussed on p. 586) and the form *ὄρος* (*ἄντορος*) which repeatedly occurs on the Heracl. tables, Attic has *ὅρο-ς* ('boundary') as the established form, perhaps to distinguish it from *ὄρ-ος* ('mountain.') For if we are to look for grounds for the confusion between the breathings, it seems to me that in the case of a phenomenon of such

[1] Ascoli 'Krit. Stud.' 315 has pronounced Christ's conjecture ('Lautl.' 239) that *ἑώς* comes from a primary **vasas* to be 'convincing.' In that case all the other forms would have to be referred to another primary form. We should have expected **εὔως* like *εὔχομαι* (cp. p. 702). But in Lesb. it is *αὔως*, in Dor. *ἀώς*, so that we can certainly deduce the existence of *ἀϝος*.

comparatively late appearance in language, the grounds must be of a much more special character. I do not think it impossible that ἡμεῖς should have owed its asper to the analogy of ὑμεῖς; and so ἧμαι might be influenced by ἕζο-μαι (No. 280), especially by means of the aor. εἷσα. ἁμαρτεῖν (cp. 'Gk. Verb' p. 281)—Homeric ἥμβροτον, ἀβροτάζω—whose meaning almost compels us to go for its origin to the privative ἀν and the rt. μερ (No. 467), not, as Benary 'Ztschr.' iv. 49 takes it, to No. 466, perhaps sounded like ἅμα, ἵστωρ by the side of ἰδεῖν
691 perhaps like ἵστημι, ἱστός. The Heraclean ὁκτώ, to which we may now add χῶγδοον found on a comparatively late inscr. from Dyme in Achaia, and ἐννέα perhaps followed ἑπτά. ἅγιος, ἅγος (No. 118) drew after itself some forms belonging to ἅγος (No. 116). It is conceiveable that the particle ἕως is to blame for the aspirate in ἑώς, just as many Germans say *Augenbraunen* for *Augenbrauen* ('eyebrows'), and as other relationships and parallels are discovered by 'popular' etymology[1].

F. Groups of Consonants.

In the course of these investigations attention has been repeatedly called to the fact that groups of sounds are subject to other laws than those which hold for individual sounds. This is seen nowhere more clearly than in the case of diphthongs. Their manifold transformations, e. g. in Latin, for which we need only refer to Corssen's thorough treatment of the question, are subject to laws quite different from those of the affections of the individual vowels. Consider only the history of the diphthongs *ai, oi* which are so constantly weakened not only to *ae, oe* but even to *ī, ū,* though we see not the remotest trace of similar weakenings in the case of the individual vowels *a* and *o*. For instance, the old *ā*, in the nom. sing. at most goes no farther than *ă*, while in the dat. and abl. plur. it disappeared in time altogether (*ala, alīs*). Groups of consonants, especially at the beginning of a word, which is etymologically the most important part, give the

[1] [See above p. 438, and cp. Sayce 'Principles of Comparative Philology' p. 376–8.]

vocal organs most trouble. The inclination to make these groups easier, to render their several elements mutually more accommodating, and even to drop one or more of them out, is therefore one which needs little explanation, especially as a small loss or change here leaves the effect on the ear essentially the same, and consequently the change entails far less danger than in the case of simple sounds to the interests of distinctness, the preservation of which is a principle which must take an important rank by the side of the proneness to 'weathering away' which has been noticed in the life of language. To the fact that the Greek aspirates are in a sense groups of sounds we have already appealed as ground for the supposition of similar peculiarities in the case of these sounds.

Pott ii[1]. 297 and Leo Meyer i. 183 ff. have made many comparisons of initial groups of consonants. Max Müller 'Lect.' ii. 169 gives some remarkable instances of defaced groups of 692
sounds from different languages. We here confine ourselves to such movements of sound as are distinctly to be seen, and shall be more than usually careful to exclude doubtful instances. Some cases have been already noticed at p. 429 ff.

To begin with, we will take the simplest case of defacement, that of the loss of a consonant.

1. Loss of a Consonant.

Since Greek shows no disinclination to the harsh combinations made by κ, π, χ, φ, γ, β with a following dental of the same order, it is with the groups beginning with the sibilant that we shall here be specially concerned. On the whole these groups too are faithfully preserved, and in this respect all we need do is to point to words and roots like σκαιό-ς (No. 105) = Lat. *scaevu-s*, σκήπ-τ-ω (No. 108), σκάπτω (No. 109) by the side of the Lith. *kápa-s*, σκιά (No. 112), rt. στα (No. 216), στεμφ (No. 219), στιγ (No. 226) by the side of the Skt. *tiǵ*, σπλήν (No. 390) by the side of the Skt. *plīhán*. On the other hand we find sporadic instances of a twofold lightening of such groups, either by the loss of the sibilant, or by the expulsion of a following sound. We will first discuss the former, by far the more frequent of the two.

(a) Loss of a Sibilant.

This has become the rule in the case of σρ and σν, which are combinations not allowed in Greek. Thus the Gk. rt. ῥυ (No. 517) corresponds to the Skt. *sru*, Lith. *srav-jù*. The Latin representatives of this root discussed at p. 352 probably point to the fact that the loss of the *initial s* belongs to the Graeco-Italic period. In the middle of the word, to judge from forms like ἔρρεεν from ἐ-σρεϝ-ε-ν (Skt. *á-srav-a-t*), the *sr* seems to have been preserved longer intact. — So too for νάω and νέ-ω (No. 443) we gave the rts. *sna* and *snu*, whose initial was to some extent left untouched in Skt. and Zend, in Umbrian, Teutonic, Lithuanian, and Irish, and we traced νυό-ς (No. 444) to σνυσο-ς. The Lat. *nuru-s* here shares the loss of the *s*, and the same applies to the rt. νιφ (No. 440), νίφει by the side of the Lat. *ning-it* and the OHG. *snîwit*, Lith. *snìgti*, and to the rt. νεφ, from which come νεῦρο-ν and *nervu-s* (No. 434) by the side of the OHG. *snar-a*.

A σμ occurs tolerably often in Greek: σμάω (Pott W. i. 388), σμῆνος, σμερδαλέος. At all events in the latter of these words the σμ is original, if with Ebel ('Ztschr.' vii. 227), and Corssen ('Beitr.' 430) we refer this word and the related σμερδνό-ς to a rt. *smard*, a root which has lost its *s* in the Skt. *mard* =
693 Lat. *mord-ere* (No. 457), though it has faithfully preserved it in the OHG. *smërz-an*. It is true the meaning of the Gk. words is somewhat more remote. But a comparison of the English *smart* makes the transition from 'biting' to 'hurting' and 'alarming' seem not impossible[1]. — In certain dialects by-forms in ζμ seem to have subsisted, if we may trust Eustathius p. 217, p. 1421, who calls the ζ in this connexion at one time Achaean, at another Attic. Still we find on inscriptions a weakening of σ to the sibilant sound given to ζ by the later Greeks, at all events in the proper name Ζμύρνη and in the Delphian form καταδουλιζμῷ (Wescher-Foucart No. 433, 13 p. 312). The double μ in φιλομμειδ-ής by the side of μειδιάω (No. 463) preserves a trace of the rt. *smi*. From a weakening like this to the complete rejection of the letter

[1] We have a remote connexion perhaps in σμαρ-κό-ν, interpreted in Hesych. by καθαρόν (?), βρωτικόν, δριμύ.

was but a short step[1]. This step has been taken in the case of *μέλδ-ω* (No. 287), *μάρ-το-ς*, *μέρ-μερ-α*, *μέρ-ι-μνα* (No. 466), and *μύδ-ος* (No. 479), where only the related languages have retained the *s*. *μικρό-ς* is to be found from Homer onwards by the side of *σμικρό-ς*. Fick i³. 835 compares the word with the OHG. *smâlir* 'littleness,' 'insult,' and the Lat. *mac-er*, Joh. Schmidt with the Lat. *mic-a*, *mic-ula*, 'crumb,' *mīcidus* 'tiny' ('Voc.' i. 108). — *σμυκτήρ· ὁ μυκτήρ*, and *σμύσσεται· ἀπομύσσεται* Hesych. are peculiar. For the related languages only know of forms with no initial *σ* (No. 92).

About the following words we can be certain, — thanks especially to Lobeck 'Elem.' i. 125, — that a *σκ* has been lightened to a simple *κ*. His 'Dissertatio de prosthesi et aphaeresi' discusses minutely and exhaustively, from a specifically Greek point of view, the other groups of consonants found at the beginning of words. — Just as, in the case of *σμ*, *ζμ* served as a transition to the simple *μ*, so we can appeal to the license of Homeric prosody, which left a vowel short before *Σκάμανδρος* (*Υ* 74 etc.) and *σκέπαρνον* (*ι* 391, *ε* 237) as showing an intermediate step between *σκ* and *κ*. The necessities of the metre produced the same result here, at all events as far as the ear went, which was produced in the other case on both ear and eye alike by the inclination to ease in pronunciation. Lobeck points out that the same relation exists in Homer and Hesiod between *κίδνασθαι* and *σκίδνασθαι* (*ὑπεὶρ ἅλα κίδναται Ἠώς Ψ* 227 — but *Π* 375 *σκίδναθ' ὑπὸ νεφέων*) as between *κεδασθέντες* (*Β* 398) and *σκέδασεν* (*Ρ* 649). The *σκ* (Nos. 294, 295) is evidently primitive. So we get side by side *σκάπετο-ς* and *κάπετο-ς* 'ditch' (Hesych.) while the verb 694
σκάπτειν preserves the fuller initial, which, as has been shown under No. 109, must be regarded as the older. The Letto-Slavonic family shows the same aphaeresis. *καφά· λουτήρ* (i.e. 'bathing tub') *λάκωνες* Hesych. clearly belongs to *σκάφος* 'ship,' 'hollow' and *σκαφίς* 'tub.' The name for the fox, attributed to this root at No. 109, is sometimes *σκαφώρη* and sometimes *καφώρη*. — Hesychius gives us *καρθμοί· κινήσεις*, Cyrillus (M. Schmidt on Hesych.) *καρθμός· ὁ πούς*, words which we

[1] Cp. the different treatment of *σμ* in the middle of a word discussed above on p. 433.

agree with Lobeck in thinking related to σκαίρειν 'hop.' To the same root in the sense 'start,' 'quiver' probably belongs κεραυνό-ς and the Lat. *coru-scu-s*. For the latter we get the by-form *scoru-scu-s* (Loewe 'Prodr.' 355). Cp. Brugman 'Stud.' viii. 315, Van. 1246. — σκάρῑφος (p. 533) and the commoner κάρφος 'twig,' 'splinter' are no doubt one and the same word; we can be all the more certain of this, because we find a connecting link between them in the dim. σκαρφίον and the verb σκαρφά-ω 'splinter' (Lobeck 'Prolegg.' 294). — κίμψαντες ἐρείσαντες (Hes.) is to be referred to the root with the fuller initial which we get in σκίπων, σκίμπτειν, and is discussed at No. 108. — A kind of ant is called σκνίψ (st. σκνῑπ and σκνῑφ) and κνίψ, — also σκίψ Lob. 'Paralipp.' 114. Cp. Pott W. i. 678, where the ChSl. *sknipa* 'culex' is compared. — On the relation of the rt. κοϝ to θυο-σκόος and the forms of the related languages we need only refer to No. 64; with reference to σκῦτος and κύτος to No. 113, to which must be added the derived form σκυτάλη, and the by-form κουτάλη quoted by Lobeck 126, and said to be Doric. —For the root of κείρω, κόλο-ς, κολούω we found at No. 53 that the primary form was *skar*. Besides these I may call attention to No. 45 b κείω, No. 59 κλῃΐ-ς, No. 686 κόπτω, No. 76 κρίνω.

A σπ has been weakened to π in the following instances: rt. πεν (No. 354) by the side of σπα, σπάνις, πί-νο-ς 'dirt' (No. 365) by the side of σπῑ-λο-ς 'spot' and the OBohem. *spi-na*. — There is no clear etymology which will account for the relation between σπέλεθος (Ἑλληνικῶς) and πέλεθος (Ἀττικῶς) and σπύραθος, πύραθος connected with it by Lobeck on account of the meaning 'dung.' Conjectures are given by Leo Meyer i. 64, and Walter 'Ztschr.' xii. 383. The form σπέος however for πέος 'penis' is not established (No. 355). — Less probable again is Leo Meyer's view that the rt. πικ (No. 100) has lost a sibilant, the only proof of which is to be found in *spica*, *spiculum* and *spina*; and their relationship is by no means clear. Other combinations for these words are given by Corssen i². 538. — Before φ the Laconians dropped the σ in the dat. pl. of the
695 reflexive pronoun φίν = σφίν (No. 601, Ahr. 'Dor.' 271), and in the same way the Boeotian in Φίξ = Σφίγξ by the side of σφίγγειν 'strangle,' but with a κ in the stem acc. Φῖκα (Beer-

mann 'Stud.' ix. 60). — On the other hand at No. 558 we expressed a doubt whether the σ of the rt. σφαλ ever disappeared.

Before τ the sibilant has certainly fallen away in the following words: ταῦρο-ς (No. 232) by the side of the Ved. *sthūrá-s*, Goth. *stiur*, τέγος, τέγη by the side of στέγος, στέγη (No. 155) and the Skt. *sthág-ā-mi*, where again the Lat. *teg-o* and the ON. *thak* (OHG. *dek-ju*) correspond with the shorter form, rt. τυδ (No. 248), preserved in Τυδ-εύ-ς, by the side of the Lat. *tund-e-re* and the Skt. *tud*, but the Goth. *stau-ta* (OHG. *stôz-u*), rt. ταφ (No. 233) by the side of the Skt. *stambh*. The same relation is to be seen in the case of the rt. τυπ (No. 249), OHG. *stumpf* and Skt. *pra-stump-a-ti* along with στυπάζειν. It seemed probable that the same loss has been sustained by τέρας (No. 205). τόπ-ο-ς has been connected with the Skt. *sthāp-ájā-mi* 'place,' to which it would bear the same relation as that borne by the German *Stelle* ('place') to the verb *stellen* ('to place'). The *o* makes this very doubtful. — We have a Latin instance of the expulsion of *s* before *t* in *toru-s* by the side of *stor-ea* (No. 227). (Cp. Corssen i². 278.) The Skt. *tál-p-a-s* 'bed,' too, of similar meaning, is referred in the 'Pet. Dict.' to the rt. *star*, of which *tal-p* would have to be regarded as an expansion. With τύρ-βη (No. 250) is connected στυρβάζειν = τυρβάζειν and perhaps the German *Stur-m* ('storm'), and we may also mention the onomatopoetic verbs τρύζειν and στρύζειν (Lob. 'El.' i. 131), and τρίζειν by the side of στριγ-μό-ς. But we have no right to compare the Latin *strīd-ē-re* with the root shown by τέ-τρῑγ-α, as the *d* cannot be reconciled with the γ. The view that τόνο-ς in the sense of 'tone' ought to be separated from the rt. τεν and referred to the onomatopoetic rt. στεν, *stan* has, I believe, been refuted at No. 230. On the other hand we conjectured that the rt. ταϝ (No. 230 b) arose from *stag*.

(b) Loss of another Consonant.

That the sibilant should suppress a following consonant is *a priori* only probable in the case of the spirants, which in so many instances besides had to lose their place in the mouths of the Greeks. The digamma met with this fate in: σάλος

σάλ-η (No. 556), σέλ-ας along with Σείρ-ιο-ς from the rt. *svar* (No. 663), σιγ-ή (No. 572) by the side of the Germ. *schweigen* ('to be silent'), σίδ-ηρο-ς by the side of the Skt. *svēd-anī* 'iron pan' (No. 293), σόβ-η (No. 574) by the side of the Germ. *Schweif* ('tail'), σομφό-ς (No. 575) by the side of the Goth. *svamm-s*, probably too in σαίνειν 'wag the tail,' Hom. περισσαίνειν, by the side of the MHG. *swanz* ('tail') (Delbrück 'Ztschr.' xvii. 239). — But explosive sounds too are perhaps now and then expelled after the sibilant; this has happened to τ in σύρβη, σύρβα the ordinary Greek forms for the Attic
696 τύρβη, τύρβα, both, as we saw, probably from the rt. στυρ (No. 250), although the objection is here admissible that σ is weakened from τ like the σ in σύ by the side of τύ. There are many doubtful cases (among which I reckon συλάω by the side of σκῦλο-ν No. 113) which we need not discuss[1].

Even before a sibilant an explosive was suppressed under certain circumstances. Here we must place the usual form σύν, in the place of the more original ξύν, which is also replaced by *cum* and κυν (p. 544), the Boeotian and Arcadian ἐς for ἐξ, mentioned on No. 583 b, the Cypr. σοάλα = ξυήλη (M. Schmidt 'Ztschr.' ix. 367)[2], and the dialectic representation of ψ by σ: σίττακος by the side of ψίττακος, though this is probably a foreign word, ἄσεκτο-ς = ἄψεκτο-ς in Rhinton

[1] Here may be added Delbrück's conjecture ('Ztschr.' xvii. 238), that σῶμα (for σκωμα) corresponds to the OS. *hamo* 'covering,' OHG. *lîh-hamo* 'corpse.' In that case the root would be that mentioned at No. 112.

[2] H. W. Roscher has drawn me up a list of forms in which ξ and σ are interchanged. After removing those which are etymologically obscure, and also those in which an Attic σ makes its way even in Doric into the place of the genuinely Doric ξ discussed on pp. 615 and 632 (tabb. Heracl. i. 51 ['C. I. G.' No. 5774] κατεσωίσαμες, ii. 30 [5775] κατεσωίξαμες), we are left with the following important instances besides those mentioned in the text: at the beginning of a word in Σενοφίλου=Ξενοφίλου (in the Roman period 'C. I.' 2585), in the middle in Ἀνασικλέους (1591, 34, Boeotian), Δεσίω=Δεξίου (2598, Cretan), δεῖσιν=δεῖξιν (2820, Rom. period), ἀναδεσάμενον (3080, Rom.) Παράδοσος =Παράδοξος (Wieseler 'Jahn's Jahrb.' 1868 p. 127), at the end in πέρις=πέριξ (1625, 14, 58, Boeot.). — For σ for ψ R. quotes σελλίξεσθαι· ψελλίξεσθαι Hesych.

(Ahr. 'Dor.' 99), σώχειν Ionic for ψώχειν. We may probably too assume the same intermediate step between ψάμμος, ψάμαθος and ἄμμος, ἄμαθος. It is probable indeed that the Lat. *sabulu-m* and the Teutonic *sand* are also related; and they show the *s* that we should expect to find. Fick's assumption (i³. 160) that the Skt. *bhas* is the root, and that by metathesis it became *psā* which also means 'bruise' (Van. 631, Brugman 'Morphol. Unters.' 18) is ingenious.

2. Change from one Organ to another.

In words which are undoubtedly related there occurs not seldom after a sibilant a different explosive: sometimes the variation occurs within Greek itself, sometimes as between Greek and the other languages. Diez 'Gramm.' i. 266 notices the same phenomenon in the Romance languages: e.g. Ital. *fischiare* for *fistulare*, *mischio* for *mistio*. I regard alterations of this kind as occasional aberrations due to similarity of sound. So we find σπ for σκ in σπάλαξ, ἀσπάλαξ by the side of the older form σκάλοψ, which is shown by its etymology 697
(No. 106) to be the older, so too σπάλ-α-θρο-ν 'coal-shovel,' by the side of σκάλ-ευθρο-ν, σκάλ-εθρο-ν. Since σκαλεύω (cp. σκάλλω) is also used especially of 'poking the coals,' the etymon is undoubtedly No. 664. The Gk. σπινθήρ (p. 504) is confronted by the Latin dim. *scintilla*, though Fick 'Ztschr.' xxi. 2 explains it otherwise. On the other hand we find for the Gk. σκῦλο-ν (No. 113) the labialised *spolia* in Latin. Eustath. 'Ad Il.' 947, 13 mentions σφαρίζω by the side of σκαρίζω 'hop.' Considering the related σκαίρω and σκιρτάω the σκ seems to be older than the σπ. But we have good reason for holding the order of the sounds in the Lat. *spec-i-o* to be older than that in the rt. σκεπ (No. 111). σφ occurs in the rt. σφαλ as the correlative of the Skt. *sphal* (No. 558), but the latter language has also a form *skhal*.

There is a connexion between the very common στ and the harder σκ in the st. σκαρτ (nom. σκώρ) by the side of *sterc-us* and στεργ-άνο-ς (No. 110), where the κ has the Teutonic and Slavonic on its side; in στόλοκρον· τὸ περικεκομμένον τὰς κόμας καὶ γεγονὸς ψιλόν, i.e. 'cropped,' and so of

the same meaning as σκόλ-υθρο-ς discussed at No. 114; in σκάφος (No. 109) with the by-form στάφος preserved in Hesychius. There are also cases where σπ is connected with στ. There seemed (No. 354) to be good grounds compelling us to assign to the Dor. σπάδιο-ν priority over the ordinary Greek στάδιο-ν: we compared it, at all events as far as the root went, with the Latin *spatiu-m*. So too the Skt. *shfīv* cannot be reckoned anything but a weakening of the rt. *spiu*, *spu* (No. 382) which appears elsewhere. It is more difficult to say what is the relation of the Aeol. σπελ (σπαλείς, σπόλα) to στέλλω, στολή (No. 218), but I am very much inclined to couple the Lat. *stud-e-o*, *stud-iu-m* with the almost synonymous σπεύδ-ω, σπουδ-ή (cp. Fick i³. 251) and to regard the labial as older than the dental. Kuhn 'Ztschr.' iii. 324 compares with σπεύδ-ω the OHG. *spuon*, *spuoan*, along with the derived OHG. *spuatôn*, AS. *spêdan*. The δ must in that case be secondary, and the *u* have arisen from *a*. (Cp. Corssen 'Nachtr.' 117.) — Much doubt has been thrown on the connexion of στροῦθο-ς (or στρουθό-ς) with the synonymous Goth. *sparva* 'sparrow,' since Joh. Schmidt ('Ztschr.' xxii. 316) has shown, that in the ModGk. σπουργίτι, to which perhaps belongs σπέργουλος· ὀρνιθάριον ἄγριον (Hesych.), we have a name for the same creature with a π.

3. Other affections.

We here assign the first place, not without reason, to the aspiration produced by a sibilant on a following explosive.
698 This is one of the commonest affections, and it has been sufficiently discussed on p. 503 ff.

We met with a few cases of the softening of an initial κ to γ when joined to ν on p. 535. To these we may perhaps add γδοῦπο-ς 'noise,' which is further defaced to δοῦπο-ς, and can hardly be separated from the almost synonymous κτύπο-ς.

κτ corresponds in a number of clear instances to *ksh*, i.e. an older *ks* in Sanskrit (Ascoli 'Stud. Crit.' 378). Here belongs the Gk. rt. κταν, κτεν, 'kill' = Skt. *kshan*, Zd. *khsan* (No. 77 b), κτι 'build' = Skt. *kshi* (No. 78)[1]; we find the same in the

[1] To this root belongs also the word KTOINA which may now be read

middle of the word in τέκτων (No. 235) = *tákshā*, ἄρκτο-ς (No. 8) = *ṛ́ksha-s*. It is important to notice the by-forms with a simple κ: καίνειν, ἄρκος. To these Leo Meyer i. 193 adds κτεί-ς st. κτεν, 'comb,' by the side of ξαίνειν 'comb,' 'scratch,' which seems to be related to ξέειν 'scrape' and the kindred words. We might add κτεδών 'tear,' 'cleft in wood' (Aristonicus on Ψ 169), if it were not that here the lengthened rt. σκεδ (No. 294) is the base of the word. We may moreover compare the Boeot. ὄκταλλο-ς with the Skt. forms *áksh-i*, *aksh-án* (p. 464). Aufrecht ('Ztschr.' viii. 72), taking his stand on the fact that elsewhere the priority of the *t* to the *s* is firmly established, regarded the Greek form as the oldest, and conjectured that *ks* came from *kt* by the weakening of the explosive to the sibilant. Schleicher ('Compend.[3]' 167, 204), and Pott ii[2]. 508 followed him in this view. Pott W. ii. 2, 307 now admits that the Gk. τ is due to assimilation. *ks* became *kt* owing to the influence of the preceding κ. We saw in σπόγγο-ς (No. 575) and σφε = *sva* (No. 601) an assimilation of a like tendency.

It is still easier to explain the occasional interchange of position between the sibilant and the explosive, inasmuch as here again it is the general impression presented by the combined sounds, in whatever order, with the preservation of which the linguistic instinct linked the meaning of the word or root. This change appears as a special dialectic peculiarity in the Aeol. σκίφος, σπέλιον, σπαλίς, σδυγόν (Ahrens 'Aeol.' 699
49) instead of the ordinary Greek ξίφος, ψέλιον ('curb'), ψαλίς ('shears'), ζυγόν. It is probable that in the case of ξίφος and the related ξίφη 'the iron of a plane' (Hesych.) the

several times in the inscrip. from Kamiros in Rhodes of the fourth century before Christ, published by C. T. Newton 'Trans. of the R. Soc. of Lit.' vol. xi. New Series: so quite at the beginning ἔδοξε Καμιρεῦσι τὰς κτοίνας τὰς Καμιρέων τὰς ἐν τῷ νάσῳ καὶ τὰς ἐν τῷ ἀπείρῳ ἀναγράψαι πάσας. Clearly, as Newton has seen, Hesychius's interpretation (κτίναι ἢ κτοίναι· δῆμος μεμηρισμένος) of 'community,' 'settlement,' suits this. It is a new guarantee of the excellent sources from which his lexicon is drawn. Similarly κτῖσμα, κτίσις. The accentuation κτοι-νά would agree with ποι-νή, κτοί-να with θοί-νη. Also at l. 14 there is the derived κτοινά-τα-ς (cp. δημό-τη-ς).

Aeolic form has probably the original position of the sounds, as Fick i³. 808 well compares the ON. *skafa* f. 'scraping-iron,' OHG. *scaba* f. 'plane' (cp. ChSl. *skob-lĭ* 'radula'), while *ζυγό-ν* is without doubt older than the Aeolic *σδυγόν* (p. 626). There is evidence that some of these forms are Doric as well (Ahr. 'Dor.' 99), and with them we may class the Syracusan form of the reflexive pronoun—*ψέ* for the ordinary Greek *σφέ* (*ψέων*, *ψίν*, *ψέ* Ahr. 'Dor.' 261), —and *ψύττω* which at No. 382 we referred along with (*ἐπι*) *φθύσδω* to the rt. *spu*. What is the relation of Hesychius's *ἀσπίθιον* to the synonymous *ἀψίνθιον* it is hard to determine. On the other hand *σφόνδυλο-ς* 'whirl' seems to come from a rt. *spand* (No. 296), so that *ψενδύλοι* (Hesych.) is due to metathesis. With *ψεκάς* or *ψακάς* 'drop' Fick i³. 831 connects the Lith. *spaka-s* 'drop,' 'dot.' Again we find the Gk. *ἰξό-ς* 'mistletoe,' 'birdlime,' confronting the Lat. *vis-cu-s*, *vis-cu-m* (Fick ii³. 242), *ἰξύ-ς* 'flank' has been compared with the Lat. *visc-er-a* (Van. 969), the Gk. *σφήξ*, Lat. *vespa* confronting the OHG. *wefsa* (No. 580). Perhaps we have in *ψήν* 'gall-fly' which Fick i³. 160 compares with the Skt. *bhus-ana-s* 'bee' the same group preserved in a different order. *ψόα*, Ion. *ψύη* 'the reins,' seems clearly related to *ὀ-σφύ-ς* 'hip,' perhaps even to the Skt. *sphiḱ* 'hip' (Kuhn 'Ztschr.' iii. 324). It is perhaps not so clear whether the Gk. *ξυρό-ν* is related to the synonymous Skt. *khsurá-s* 'shearing-knife,' and the unauthenticated rt. *kshur* 'cut,' 'scratch,' and the German *scheeren* (*shear*, OHG. *skeran*). On the other hand *σκύρο-ς· λατύπη*, i.e. 'rubbish fallen from cut stones,' which Van. 1120 gives with *ξυρό-ν* can certainly not be separated from *ξύειν* 'scrape,' 'make smooth.'—The initial *ψ* still especially needs careful investigation. We have already met with this double consonant in the Syracusan *ψίν* from the st. *sva*: here the *φ* of the corresponding *σφε* had first been hardened from *ϝ*. We saw this hardening without a transposition in *σφόγγο-ς*, *σπόγγο-ς* No. 575. Perhaps this is the way to explain the Aeol. *Ψαπφώ* = *Σαπφώ*. It seems to me probable that this name is really equivalent to *σοφή* 'docta puella,' and so belongs to *σαφής*, *σοφό-ς* (p. 512). *Ψαπφώ* would bear to *σοφή* the same relation as the pronominal form *ψέ* to the Lat. *se*. By the side of the form with

πφ we find the simple φ as well, and conversely by the side of σοφό-ς we have in Aristoph. 'Eccl.' 571 φιλόσοφος with a long penultimate (Roscher 'Stud.' i. 2, 123 f.). The same relation probably exists between ψόλο-ς 'smoke,' and the German *schwelen* 'smoulder,' *schwül* 'sultry' (AS. *svelan* 700 'urere,' 'ustulare' [Eng. *sweltering, sultry*] Van. 1222). Joh. Schmidt ('Ztschr.' xxii. 314) regards ἀ-σβολο-ς 'soot' for *ἀ-σϝολο-ς as the intermediate stage.

4. Several affections combined.

Although etymologies, which assume an excessive number of changes of the originally existing sounds, readily awaken distrust, still the difficulty of pronouncing several groups of consonants is sufficient ground for accepting the supposition of the concurrence of several distinct defacements. But it is slippery ground after all. We must exact all the more complete similarity of meaning before we are convinced of the soundness of a comparison.

For instance I have under No. 106 connected with σκάλοψ, transformed, as we saw on p. 696, to σπάλαξ, ἀσπάλαξ, the Lat. *talpa*, because both words are names for the same animal, and preference for *st* rather than *sc*, *sp* is established by other analogies besides (*stud-eo*, *stercus*), while the loss of *s* before *t* finds still clearer precedents (p. 695). The *a* of *talp-a* may be compared with that of *formīc-a* by the side of μύρμηξ (No. 482), and of *upup-a* by the side of ἔποψ (No. 336).—Similarly I hold Leo Meyer to be right in connecting *turg-e-o* with σπαργ-ά-ω (by-form σπαργέω), σφριγ-ά-ω. The meaning 'swell up,' 'be puffed up,' both in its literal and in its metaphorical sense, is common to both words. Cp. Bugge 'Ztschr.' xx. 40. Fick i³. 833 adds ἀσπάραγ-ο-ς 'asparagus' = Lith. *spurga-s*, Zd. *çparegha* 'sprout.' But cp. p. 503.

Of the possibility of loss of the sibilant supervening upon another affection we have irrefragable proof in the form φίν = σφίν (Ahrens 'Dor.' 261) in which the Laconians show their usual love of conciseness. We claimed the same change for the Homeric φή 'as,' on p. 443. As here the sibilant disappeared after affecting the following spirant so after pro-

ducing aspiration in the case of the Lat. *fid-es* 'strings' by the side of σφίδ-ες (No. 297), where we can get no clear indication of the original form of the labial. Leo Meyer and Corssen i². 179 compare πνίγ-ω with the Lat. *stingu-o*, which can hardly be separated from the German *er-sticken* ('stifle' No. 226) and is connected by Pott ii². 682 with στίζειν. In that case it would be the exact opposite of the German *an-stecken* ('set fire to'). Leo Meyer's explanation is a possible one, supposing we regarded *spig* as the primary form, whence by nasalization *spring*, by change of organ *sting*, by loss of the *s* and
701 metathesis of the nasal *pnig* (for *ping*). But there are too many leaps here, and I still hold the conjecture given under the rt. πνυ (No. 370), to be more probable[1].

The union of aspiration with the loss of the *s* shows itself with special clearness in Sanskrit, where an *sk* very often changes to *kh*, a phenomenon which is most thoroughly discussed in Kuhn's often-mentioned essay 'Ztschr.' iii. 326 f., and again by Ascoli 'Lautl.' 183 f. In two widely extended classes of words the supposition of a change from σκ to χ is highly probable, in the case of several verbs which are formed from shorter stems by the addition of a χ, and in that of the Boeotian diminutives in -ιχο-ς with which are allied a number of forms in ordinary Greek. As regards the verbs, we have one at all events which shows us the assumed transitional σχ, i. e. the present-stem πασχ, which we refer to παν-σκ. From the same stem an expanding θ produced πεν-θ, πα-θ (p. 63 and No. 354), so that πά-σχ-ω is the inchoative of πέν-ο-μαι, and is to be referred to παν-σκ-ω. As we saw on p. 694, the root has lost an initial σ. The ordinary supposition, that the aspirate of πά-σχ-ω is connected with the loss of a suppressed θ, cannot be proved. For we never find θ and σκ together; the former is frequent in aorists, the latter used exclusively in present stems[2]. If then the σ disappears in other verbs,

[1] The Skt. *spaça-ti* 'bind,' 'tie' compared by Fick i³. 251 with σφίγγω and πνίγω though given in Westergaard's 'Radices' is not in the 'Pet. Dict.' and there is no close connexion between the meaning given by Justi for the Zd. *spaç* (*avi-çpaç* 'attack,' in one passage only) and the Greek words. There the vowels are different as well.

[2] Grassmann 'Ztschr.' xii. 120 compares παθ with the Skt. *badh*

after aspiration has resulted from it, we have for this the strict analogy of the verb-forms in *σθ*: — *ἔρ-χ-ο-μαι* : *ἐρ-σχ-ο-μαι* = *δεδάρ-θαι* : *δεδαρ-σθαι*. We can discern three grounds for such a shortening. Firstly a preceding consonant, after which *σκ* was hardly pronounceable. Probably this serves to explain only *ἔρχομαι*, which has been already repeatedly mentioned as identical with the Skt. *ṛ-ḱḱh-ē* (p. 556). Secondly the language has an objection to *σκ* after a diph- 702
thong. *πιφαύσκω* (No. 407) is the only word in which the consonantal and the vowel groups of sound come together. But the χ of *εὔ-χ-ο-μαι*[1] and *αὐ-χ-έ-ω* seems to have originated in the same way. The former has long since been compared with the synonymous Skt. *vāñḱh* from the rt. *van* and stands for *εὐ-σκ-ο-μαι*, where the *εὐ* represents the syllable *va* (cp. No. 499). The full group of consonants has been preserved in the OHG. *wunsc* ['wish,' cp. Dutch *wensch*]. The χ which properly belongs only to the present-stem makes its way into other parts of the verb like the *σκ* in *διδάσκαλος*. Hence *εὔξομαι*, *ηὐξάμην*, *εὐχή*. The same explanation may probably be given of the χ of the denominative *αὐχέω* 'boast myself,' which Benfey i. 17 refers to the same source as *εὔχ-ο-μαι*

'strike,' 'kill' ('Pet. Dict.' *vadh* No. 324), *bādh* 'press hard,' 'torture.' The same view is supported by Joh. Schmidt ('Vocal.' i. 94 ff.) with a wealth of original arguments. Still he convinces me all the less because his view leads eventually to the denial of any connexion between *πά-σχω* and *pa-ti-o-r*.

[1] The connexion of *εὔχ-ο-μαι* with the Skt. *ūh* (*ṓh-ē*), which Kuhn 'Ztschr.' x. 240 gives as an addition to a remark of Pott's (W. iii. 778), is not convincing because the Skt. word approaches only in a single application the Homeric use of *εὔχεται εἶναι*, while in its primary meaning of 'consider,' 'mark,' 'comprehend' (cp. *ūha-s* 'consideration') it is too far removed from *εὔχεσθαι* 'pray,' 'vow,' 'boast oneself' (cp. *εὐχή*, *εὖχος*, *εὐχωλή*). Roth 'Ztschr.' xix. 220 compares *εὔχομαι* with the Vedic *vāghát* 'the vowing,' 'praying' and the Lat. *vov-eo* for **vogv-eo*. But the Teutonic word is a proof of the early existence of *van-sk*. The B of *Βευχσίστρατος* on the vase of Ergotimus 'C. I. G.' No. 8185 b seems to be not certain enough to be of any use etymologically. — *εὐ* = *va* as in *εὔ-ν-ς* 'bereft' by the side of the Goth. *van-s*, Skt. *ūná-s* 'in want of.' Cp. Bugge 'Stud.' iv. 328, Fick. i³. 202.

(cp. *εὔ-ω* by the side of *αὔ-ω* No. 610), and also that of *αὐ-χ-μό-ς* 'drought,' which was given under *αὔ-ω* No. 600 b. Lastly there is to be found in initial groups of consonants a third ground for the weakening down of *σκ* to *χ*, since, as will be discussed more in detail below, Greek does not like to let two consecutive syllables begin with two consonants: hence *βλη-χ-ά-ο-μαι* (No. 395) by *bal-a-re*, *γλί-χ-ο-μαι* by *γλίσ-χ-ρο-ς* (No. 544), *πτω-σκ-άζ-ω* by *πτω-χό-ς* 'beggar,' *σμή-χ-ω* 'wipe' by the side of *σμά-ω*, *ψή-χω* 'stroke,' 'graze' by the side of *ψά-ω*, *ψαύ-ω*, *ψύ-χ-ω* 'breathe,' 'cool,' which clearly, along with *ψῦ-χ-ος*, *ψυ-χ-ρό-ς*, *ψυ-χ-ή*, belongs to the rt. *spu*, *sphu* discussed on p. 509. *ψυ-χ-ή* then, like *anima* and *spiritus*, is properly 'breath.' *νή-χ-ω*, though not in the form preserved to us, probably once had an initial group of consonants, as has been shown at No. 443. In *στενάχω* (No. 220) it is possible that the *στ* extended its influence even into the next syllable but one.

That the diminutive suffix *-ιχο* fem. *-ιχα*, mostly in Boeotian, corresponds to the common *-ισκο* is denied, it is true, by Schwabe 'De deminutivis' p. 49, but when viewed in this connexion it seems very probable, especially as the Boeotians show elsewhere a disinclination to groups with a sibilant in them: *ἴττω* = *ἴστω*, *ὀπιτθο-* = *ὀπισθο-*. The forms which occur have been sufficiently discussed by Boeckh 'C. I.' i. p. 725,
703 Ahrens 'Aeol.' 216, Schwabe *ut sup.*, and Budenz 'On the suffix *-κός*' p. 76. Among the diminutives must be placed also several substantives and adjectives in ordinary Greek, e. g. *πυρρίχη* 'torch-dance,' *βόστρυχο-ς* 'curl,' which we may follow the 'E. M.' 205, 32 in connecting with *βότρυ-ς* 'bunch of grapes,' and all the more certainly because *βότρυχο-ς* 'grape-stalk,' the undoubted diminutive of *βότρυ-ς*, occurs with the very same meaning as *βόστρυχο-ς*, e. g. in Pherecrates Fr. 67 Mein., in Euripides 'Phoen.' 1485 (*βοτρυχώδεος* [cp. Hermann *in loc.*]), and in Apollon. Rhod. ii. 679. No one of course will conceive the *σ* to have been inserted: *βόσ-τρυ-χο-ς* must be regarded as the more perfect form and hence we must assume a primary *βοστρυ-ς*, whose origin is however lost in obscurity. In both words a reason might be found for the change of *σκ* to *χ* in the group of consonants in the

preceding syllable. The case of *στόμα-χο-ς* 'stomach' (No. 226 b), no doubt a diminutive of *στόμα*, is probably the same as that of *στενάχω* mentioned above. Though there is no phonetic reason to account for it, we may regard *οὔρ-αχο-ς* and *οὐρί-αχο-ς* 'end,' 'last piece,' as diminutives of *ὄρρο-ς* (No. 505), and the same relation is borne by the adjectives *νηπι-αχο-ς*, *μείλ-ιχο-ς* to *νήπιο-ς*, *μείλ-ια* (No. 464). *ἥσυχο-ς* also (No. 568) comes under this head, though if it belongs to the rt. *ās* it is hard to see how the *σ* managed to survive. The adverbial formations *πολλαχοῦ*, *ἐνιαχοῦ* etc. are no doubt of an entirely different kind.

Loss of the sibilant appears to have been combined with softening in a few cases: *γρύ-τη* 'rubbish' = Lat. *scrū-ta* (neut. pl.)[1], whence *scrūtāri*, *scrūtātor*, *scrūtiniu-m*, *γρῖπ-ο-ς* = *scirp-u-s* (No. 516 and p. 511). Since the Lat. *grad-i* seems to be related to the German *schreit-en* 'stride' (Corssen i². 209), it is at all events very probable that *γράφ-ω* along with *γρομφ-ά-ς* (No. 138) comes from a rt. *skrabh* 'dig,' which is preserved more intact in the Lat. *scrob-i-s* 'trench' and *scrof-a* = *γρομφάς*, but also no doubt in the Bohem. *škráb-a-ti* 'scratch,' 'scrawl,' and the OHG. *scrêwôn* 'incidere.' Greek shows a dislike to an initial *σκρ* (Leo Meyer i. 189). It appeared more doubtful at No. 134 b whether *γλύφω* is to be placed by the side of *sculpo*, since there is the word *glubo* as well. Corssen, it is true, derives *γλυφ* from *skulp*, and *γλαφ* (No. 134) from *skalp* ('Nachtr.' 178). — *γνίφωνες καὶ σκνιποὶ οἱ μικρὰ προϊέμενοι καὶ διδόντες* says Aristotle 'Eth. Nic.' iv. f. 51 a. We shall probably be right in holding both names of niggards to be originally identical, and in holding the guttural in the former to be softened, especially as there 704
occur also the forms *κνιπό-ς*, *κνιφό-ς* (cp. ChSl. *skąp-ŭ* 'sordidus,' 'avarus'). Since again *κίμβ-ιξ* is another name for a niggard, *κιμβ* must be a fresh variation of the same root. Cp. Pott W. i. 679.

We find change of organ combined with transposition in *ψάρ* by the side of the German *star* ('starling'), Lat. *stur-nu-s* (No. 521), *ψι-ά* by the side of *στί-α* (No. 225), where however

[1] Cp. however Clemm 'Stud.' iii. 296 and Joh. Schmidt 'Voc.' 291 ff.

the second group of sounds finds the more decided support in the related languages.

Lastly we may even have more than two affections combined, or from one and the same primary form with a complete group of consonants various forms may proceed each with a different affection. We met with such a case in the rt. σπυ with the by-forms πτυ, ψυτ, φθυ (No. 382). As here, *φθ* and *ψ* meet also in the (Hesych.) forms *διψάρα· δέλτος, οἱ δὲ διφθέρα, ψείρει· φθείρει, ψίσις· ἀπώλεια*, and so = *φθίσις, ψιθήν· ἀπώλειαν, ψινάδες· αἱ ῥυάδες ἄμπελοι, ψινάζει· φυλλορροεῖ* (Lobeck 'Rhemat.' 32). Hence Fick's (i³. 831) comparison of *φθέγγεσθαι* 'give a sound' with the Lith. *speng-ti* 'yell,' and the MHG. *spah-t* 'noise' seems a likely one. To the same class belongs *ψα-τᾶ-σθαι (προκαταλαμβάνειν), ψα-τῆ-σαι (προειπεῖν)* which we cannot but connect with *φθά-ν-ειν* 'anticipate,' especially when we consider the gloss *φθα-τή-σῃ· φθάσῃ* (cp. Bugge 'Ztschr.' xx. 39). Now as we are led from φθυ, ψυ to the rt. *spu*, so are we led from φθα, ψα to *spa*, and it looks as if we had this form preserved in the ChSl. words *spĕ-ti* 'jacĕre,' 'proficere,' *spĕ-chŭ* 'studium,' 'celeritas,' and also in the OHG. *spuo-an*, MHG. *spuon* 'proficere,' *spuo-t* 'result.' The common primary idea is that of 'hastening' and 'overtaking.' Perhaps too the Lat. *spē-s* belongs to the same root, especially as *pro-spe-r* shows a still closer approach to the Slavonic words, and as the OLat. *spē-r-es* (acc. plur. in 'Enn. Ann.' 132) and *spēr-a-re* lead us to a stem expanded by *s*, which is also to be assumed in the ChSl. *spĕ-chŭ* (cp. p. 697). For the ChSl. *ch* has come quite regularly from *s*. (Cp. Pott W. i. 387, Fick i³. 829.) Corssen's objections are met by assuming with Fick that 'stretch' in the sense of 'intentio animi' is the transition stage between 'hope' and 'hurry.' From *span*, expanded by *n* comes the Lat. *spon-te*. Cp. OHG. *spanst* 'allurement.' — There is further a widely ramifying family of words which shows this phenomenon, which we must examine more closely. The connexion of the phonetically very dissimilar forms *δνόφ-ο-ς, γνόφ-ο-ς, κνέφ-ας* was recognized by Buttmann 'Lexil.' ii. 266, where however the completely distinct *νέφος* (No. 402) is wrongly associated
705 with them. As is so often the case, Sanskrit has shown

us here the right starting-point. The primary meaning of all these forms is 'obscurity,' 'darkness.' Now the Skt. *kshap* f. and *kshap-ā́*, Zd. *khshap*, *khshap-an* (f.) have the same meaning; a third form *kshap-as* (n.), under which Bopp 'Gloss.' treats most of the matter belonging here, is rejected by the 'Pet. Dict.' The root we must probably (cp. Benfey i. 617, Leo Meyer i. 367) take to be *skap* with the meaning 'cover' (Aufrecht 'Ztschr.' viii. 71, Pott ii². 609). This root appears clearly in the Gk. σκέπ-ω 'cover,' 'veil,' whence σκέπ-η, σκέπ-ας 'cover,' 'protection,' and the derived verbs σκεπάω, σκεπάζω, the adj. σκεπανό-ς 'covered,' 'shaded.' The first affection we have to assume is metathesis, by which *skap* becomes *ksap*, Skt. *kshap*, Zd. *khshap*. The second affection we take to be labialism, which however appears in conjunction with a third, i. e. the aspiration of the second consonant: [*spap*], *psap*, ψάφα, ψέφ-ας, ψέφ-ος 'darkness' (Hesych.), ψαφαρό-ς, ψεφ-ό-ς· σκοτεινός (Hesych.) ψεφ-ηνό-ς 'obscurus' in Pindar. The transformation of the guttural group to the labial has analogies in the Mod. Gk. e. g. ἐψές = ἐχθές (Chalkiopulos 'Stud.' v. 361). Between ἐχθές and ἐψές we may probably assume an intermediate form ἐφθες. — The rts. φθερ and φθι with the by-forms ψερ and ψι just quoted have arrived at their labial in the same way, for the former comes in meaning just as near to the Skt. *kshar* 'melt,' 'vanish,' *ksharā́-s* 'perishable' (Zd. *khshar* 'flow'), as the rt. φθι does to the Skt. *kshi* (*kshi-ṇā́-mi*) 'destroy,' 'corrupt,' *kshí-ti-s* = φθί-σι-ς, *kshajá* (m.) = φθόη 'consumption,' Zd. *khshi* as a verb, 'destroy,' as a subst. (f.) 'disappearance' (Benf. i. 178, 202). — A third group of forms is most simply explained by the assumption of a nasalized rt. *skamp*, related to *skap* as *tump* is to *tup* (No. 249). Greek shows a disposition to transpose a nasal, e. g. in τμῆ-σι-ς from the rt. τεμ, θνή-σκ-ειν by the side of θαν-εῖν. In this way we arrive at *sknap*, with aspiration σκνεφ, a form which, when the σ is knocked off, appears in Homer as κνέφ-ας, and without loss of the σ, but with a weakening of the ε to ι, in σκνῖφος· σκότος, σκνιφή· ἄκρα ἡμέρας καὶ ἑσπέρας (Hesych.). So too Walter 'Ztschr.' xii. 383. With κνέφας we may perhaps put the Lat. *crepus-culu-m* and the Sabine *Crepus-ci*

and the adj. *creper-u-s* 'dubius' (Varro 'L. L.' vi. 5, Paul. 'Epit.' p. 52 M.). Since *cn* is inadmissible at the beginning of a Latin word the *n* appears here as *r*. For this change we have at all events the analogy of the borrowed *groma* = *γνώμων*. Corssen's explanation of the Latin word from the root of *κρύπτω* (Beitr. 407) is not satisfactory, as the vowels do not agree. For Greek, it appears, softening was added to
706 the affections just mentioned. From *κνέφας* we arrived (p. 535) at *γνόφο-ς*, as previously from *σκνιφό-ς* we arrived at *γνίφων*. The form *γνόφο-ς* 'darkness,' 'gloom' was in use at all events later — from the time of Aristotle — than *δνόφο-ς*, a form called sometimes Aeolic, sometimes Doric, occurring from Aeschylus's time onward, but also supported by the Homeric adjective *δνοφ-ερό-ς* (cp. *ἰο-δνεφ-ές*). The change of *γ* to *δ* is to be ascribed to the influence of the *ν*. The same change is to be seen in the Cret. *ἀδνό-ν* = *ἀγνόν* [1] (p. 535) and in *κύδνο-ς· κύκνο-ς* (Hes.). In the latter case the *κ* is likewise primitive (No. 32), and the intermediate form with the *γ* is found in the Lat. *cygnu-s*. Whether *ζόφο-ς* with the related *Ζέφυρο-ς* the name of the wind which blows from the quarter called by Homer *πρὸς ζόφον*, belongs here is doubtful. I know of no analogy for *ζ* by the side of *δν* or *γν*. And indeed *ζόφος* has been supposed to be of Semitic origin (Hebr. *zāphōn* 'midnight region,' Müllenhoff 'Deutsche Alterthumskunde' i. 119). — The astonishing multiplicity of phonetic changes is explained partially at least by the fact that we are dealing with forms belonging to various dialects, no single one of which forms found a home in Attic Greek. — The initial group of the rt. cβec (*σβέννυμι*) has experienced extraordinary changes, not only into *ζ*: *ζείνυμι*, but even into *ξ*: *ἀποξίνυνται· ἀποσβέννυται* (Hesych.). I know not how to account for this.

In two stems *πτ* corresponds to a Latin *st*: *πτάρ-νυ-σθαι* =

[1] Ahrens 'Dor.' 109 and Welcker 'Götterl.' ii. 596 distrust this gloss, and prefer to derive the evidently related name of the Cretan Ἀριάδνη from *ἀδ-εῖν*. But since the change of *δν* to *γν* is unheard of, while Ἀριάγνη occurs on a vase as a by-form of Ἀριάδνη (O. Jahn 'Description of the Munich collection of vases' p. ccv.), phonetically there is more evidence in favour of Preller's translation of the name 'die hochheilige' ('the very holy one') ('Gr. Myth.' ii³. 532.)

ster-nu-ere and *πτύρ-ειν* = *sternare* in *con-sternare, ex-sternare,* 'disconcert,' 'startle' (cp. Corssen 'Nachtr.' 115 f., Bugge 'Ztschr.' xx. 37). Whether we ought really to assume a rt. *spar* here (cp. No. 389), which shifted in Italian to *ster*, in Greek to *psar, ptar*, I leave an open question. Van. 1180, 1182.

G. Dissimilation with a view to avoid a like sound in consecutive syllables.

Lobeck's 'Dissertatio de praeceptis euphonicis' ('Paralipp.' 18) contains the following acute remark: 'Graeci haud facile committunt, ut easdem duas consonas in duabus continuis syllabis iterent. Etenim nullum est illis vocabulum 707
simplex et primitivum, quod cum latinis *scisco, proprius* comparari possit, non ita multa quae cum vernaculis *Stillstand, dreidräthig, unausbleiblich.*' A few exceptions like *προ-πρηνής, τετρά-τρυφο-ς, βοσκέ-σκοντο, μισθοῦ-σθαι, αἰσθέ-σθαι* are mentioned, and their special character discussed. This disinclination to an excess of similarity rests on a disposition, which the language shows in a great variety of ways, to set bounds to the influence of the physical element of the sounds. Excessive similarity produces the impression of stammering and mere jingle. For this reason, not only Greek, but the other related languages as well, content themselves often in a reduplication[1] with one of the two elements that are to be repeated. This was the explanation given at No. 524 of the form *ἀλλήλου-ς*. The substitution of the corresponding unaspirated consonant for the aspirate: Skt. *ba-bhū-v-a*, Gk. *πέ-φῡ-κα* has the same origin. The aspirate is treated here exactly like a group of consonants, of which in like manner only a part is repeated. *ba-bhū-va πέ-φῡ-κα* are precisely parallel to Skt. *da-drām-a* = *δέ-δρομ-α*. Still the related languages seem not to have arrived

[1] The change of sound made on reduplication I have discussed at greater length in my paper 'Ueber die Tragweite der Lautgesetze,' Ber. d. philol. hist. Cl. d. k. sächs. Ges. d. Wissensch. 1870. Cp. 'Greek Verb' p. 356 ff., Windisch 'Ztschr.' xxiii. 223.

at definite special laws for reduplication before the separation, as is seen especially by the different treatment of groups containing a sibilant even by so nearly related languages as Latin and Greek. In this matter we can distinguish three different methods. Latin leaves the group in the first syllable intact, while it loses the sibilant in the second: *ste-t-i*, *spo-pond-i*, *sci-cid-i*. Conversely Sanskrit retains the sibilant only in the second syllable: *tí-shṭā-mi* (for *ti-stā-mi*), *pa-sparç-a* (rt. *sparç* 'touch'). Even Greek and Latin are not destitute of examples of this kind, like *qui-squil-iae* = *κο-σκυλ-μάτ-ια* (No. 114), *κα-σκαλ-ίζειν* 'tickle,' which Lobeck 'El.' i. 175 connects with *σκάλλειν* 'dig,' 'bore.' The third course, i.e. that of putting the sibilant alone in the first syllable and the full initial in the second, is adopted in the Latin *si-st-o*, and it can also be deduced as the regular course in Greek, inasmuch as *ἵ-στη-μι*, *ἕ-στη-κα* decidedly point to *σι-στη-μι*, *σε-στη-κα*. — It is clear however that, in the course of the history of language, softness, or, if we like, weakness was constantly on the increase. Of two initial consonants not only one but both are suppressed. Language contents
708 itself with the simple vowel by way of a rudimentary reduplication. This is the explanation of the apparent coincidence of the reduplication with the augment in the perfect: *ἔ-στικ-ται*, *ἔ-ζωσ-μαι*, *ἔ-κτον-α*, *ἔ-γνω-κα* by the side of *πέ-πληγ-α*, *κέ-κτη-μαι*. These examples are enough to show that the language was not consistent throughout. — But more remains to be said about the transformation in question. Lobeck justly classes forms like *λυπρόκρεως* with forms like *μακρόκρανος*. It is not only identical but similar biconsonantal initials that are avoided in two consecutive syllables. We have here to do, however, not with a mere loss of sound. Whole syllables may become lost, so that it would be more correct to talk of a shortening. The sporadic character of these changes is unmistakeable.

The tendency to dissimilation in the sense discussed above can make itself felt in two directions. Either the first syllable is lightened or the second. The first syllable has experienced a change of this kind in the following words. — *ἴχλα· ἡ κίχλα* ('thrush') in Hesychius is most simply

explained in this way as a softening of the more usual form. The synonymous κι-χήλη (Aristoph. 'Nub.' 339) shows still more clearly that κι- is a reduplication syllable (cp. Brugman 'Stud.' vii. 314, Van. 256). ἴχλα (cp. ἴχαλη· ἴσκλα, Hes.) is on this point precisely parallel to forms like ἐ-χλεύασται. — With this ἴχλα Lobeck ('El.' i. 107) associates ὄγχνη 'pear,' ('Od.') by the side of which Hesych. gives κόγχνη. We have at any rate the possible alternative of supposing that κόγ-χνη was the full form. I can find no etymon for it. — Perhaps in the case of ὄκ-νο-ς we can find one. Benfey ii. 22 assumes an initial ϝ, relying on the form ἄ-οκνο-ς. But this by no means establishes the digamma, as is shown by ἄ-οδμο-ς (rt. ὀδ No. 288), and ἄ-ορν-ο-ς (No. 503). ὀκνεῖν is the reverse of τολμᾶν, ὀκνηρός of τολμηρός, and it occasionally acquires the notion of 'anxiety,' 'fear.' In meaning then ὀκνεῖν coincides completely with *cunctari*. *cunctari* is evidently a frequentative, which we can refer to a rt. *cunc*, and this finds its analogon in the Skt. *çaṅk* (*çáṅk-ē*) 'to have anxiety' or 'scruple,' *çaṅk-ā́* 'anxiety,' 'doubt.' We may accordingly assume an Indo-Germanic rt. *kak*, nasalized *kaṅk*, and refer ὄκ-νο-ς to κοκ-νο-ς. This comparison is specially interesting inasmuch as we have here to do with an intellectual idea, which is shown to be common to many languages by the community of the root. Whether the physical meaning has survived in the Goth. *hah-an* 'hang' (Fick i³. 544) in which case *haesitare* would be the primary notion, I cannot decide. — The rather late form ἵ-πτα-μαι 'fly' 'Gk. Verb' p. 108 is related to the poetical aorist ἐ-πτά-μην (No. 214) as τί-θε-μαι 709
to ἐ-θέ-μην. No doubt ἵ with the characteristic spiritus asper does duty here for a reduplication. We meet with the same spiritus in ἕψ-ω 'cook,' by the side of ὄψο-ν 'relish,' which Pott i¹. 233, ii². 780, Benf. ii. 89 place under the rt. πεπ (No. 630). ἕψ-ω stands for πεψ-ω and is expanded from the rt. πεπ p. 465 by a determinative σ as αὐϝ is to αὐξ (cp. p. 64). There are two more noun-forms which undoubtedly belong to the same root, first ὀπ-τό-ς 'roast' with its derivatives ὀπτά-ω, ὀπταλέος in spite of their difference of meaning, — ὀπτό-ς, ὀπταλέο-ς being used for 'roast' as opposed to ἑφθό-ς, ἑψαλέο-ς 'boiled.' In πέσσειν, which, like ὀπτᾶν, is

used of the baking of bread, the two uses meet. There can be nothing surprising in the fact that the difference in form was utilised for a further differentiation of meaning[1]. — Lastly the forms *φάτρα, φατρία* belong here: although they are not so well attested as *φράτρα, φρατρία* (No. 414) and are now generally replaced by them in good editions, they have been found on inscriptions where *φα* is a shortening of the word (Roehl 'Ind. ad C. I. Gr.' p. 15) and are recognized by grammarians (Hesych., Bekker 'Anecd.' 115, 2a).

It seems not improbable that the second syllable was lightened in *πτε-ρό-ν* 'wing' The common instrumental suffix *-τρο* (cp. *ἄρο-τρο-ν, λου-τρό-ν*) joined to the rt. πετ (No. 214), transposed to *πτε*, would give *πτε-τρο-ν*. We assume that the language dropped the *τ* in the second syllable to avoid the harsh sound. The Skt. *pát-tra-m* (by the side of *pát-a-tra-m* and *pa-tra-m*) agrees with the OHG. *fëd-ara* and the Gk. *πέ-τρο-ν*. Bergk's acuteness has recognized the latter form in the papyrus fragments of Alcman ('Philol.' xxii. 5, 'Poet. Lyr.[3]' p. 834). In these fragments *ὑποπετριδίων* occurs as an epithet of *ὀνείρων* instead of the ordinary *ὑπόπτερος* 'winged.' From the primary **πτε-τρο-ν* then there came on one side *πέ-τρο-ν* by a lightening of the first syllable, on the other *πτε-ρό-ν* by a weakening of the second. Osthoff 'Forschr.' i. 171 assumes for *πτέ-ρο-ν* a suffix *-ρο*, but this does not agree with the use of that suffix. — *κοχ-ώνη* (No. 70) 'the part from the thighs to the anus' we connected with *cox-a*, *cox-endix* and some Sanskrit words, the primary notion of which was that of a hollow, applied to different parts of the body. In any case *κόκκυξ*, with the grammarians' interpreta-
710 tion *τοῦ ἱεροῦ ὀστέου τὸ πρὸς τοῖς ἰσχίοις* (Lobeck 'El.' i. 171), also belongs here. For *κοχώνη* itself is interpreted by *ἱερὸν ὀστοῦν* ('coccyx,' 'os sacrum'). Probably then *κοχ-ώνη* arose out of **κοξωνη* and bears to *coxa* the same relation as that of *κορ-ώνη* to *cor-vu-s, κόρ-αξ*. The *ξ* of the second syllable

[1] The derivation of *ἰπ-νό-ς* 'stove' from the rt. *πεπ* has been rendered questionable by Joh. Schmidt's discovery of the Old-Prussian *umpmi-s* of the same meaning ('Ztschr.' xxii. 192). The two words occur however in remote families of speech and are quite isolated, and I am not so sure as Joh. Schmidt is of their connexion.

would then have here passed into χ, as in νύχ-ιο-ς from νυκτ-ιο-ς, where we may surely venture to assume an intermediate form *νυξ-ιο-ς, and as in ἐφ-θό-ς the ψ of ἔψω appears as φ. We saw at p. 702 how the same letters in a different order (*sk*) were replaced by the same aspirate in γλί-χο-μαι, νή-χ-ω (for σνη-χ-ω), πτω-χ-ό-ς, σμή-χ-ω, ψή-χ-ω, ψύ-χ-ω. The same theory will serve to explain τρύ-χ-ω, which we discussed under No. 239 in its relation to τρύ-ω. In this case the full form τρύσκ-ει has been preserved in Hesych. and is explained by τρύχει. In all cases the vowel before this χ which has come from σκ is long. It should be noticed that the language elsewhere occasionally admits groups of sound like those we see avoided here: τι-τρώ-σκ-ω, θρώ-σκ-ω. Here too then we have to deal with no universally applicable linguistic law[1].

H. Sporadic Vowel-change.

At p. 439 ff. we recognized in the preservation of *e* and *o*, as opposed to the further weakened Italian *i* and *u*, a very old trait of the Greek language. Now is the time for giving the exceptions, and they will be followed by another vowel-change which occurs in isolated instances. We shall be able to be brief here, as the individual cases are mostly self-evident, and have moreover nearly all of them been already discussed from other points of view. See also the collections of Pott i[1]. 3 ff., Christ 25 ff., Leo Meyer i. 115 ff[2].

[1] On the same principle of 'shortening' is to be explained the loss (where it can be established) of the first of two similarly sounding syllables in Gk. and Latin, treated by Fick 'Ztschr.' xxii. 98 ff. and 371 f., and likewise of formations like τρά-πεζα for *τετρά-πεζα and (acc. to Fick) τρυ-φάλεια (cp. above p. 448). In the case of compounds Lobeck 'Paralipp.' 44 has already noticed the same process: e. g. ἡμέδιμνμον = ἡμιμέδιμνον 'C. I. G.' 5773, ἀμφορεύ-ς = ἀμφιφορεύ-ς, τέτραχμον (Boeckh τετρᾶχμον) = τετράδραχμον on a Boeot. inscr. 'C. I. G.' 1570 b. Also cp. Angermann 'Die Erscheinungen der Dissimilation' Meissen 1873.

[2] So important a place has the investigation of the vowels taken of late that since p. 439 was printed there have reached me no less

711 1. *ι* AS THE REPRESENTATIVE OF AN ORIGINAL *α*.

It is extremely probable that in the Italian languages, whenever an original *a* became *i* it was through an intermediate *e* (p. 439). The same course may be conjectured for the limited number of forms which show the same change in Greek. By far the greater number of them have forms with the *e*-sound as well. The tendency to this softening appears strongest before groups of consonants, the weight of which seems to have robbed the preceding vowel of some of its fulness, in the same way in which we now and then see, e.g. in the Ion. *ἀπόδεξις* = *ἀπόδειξις* — to which we can now add *ἀποδεκνύντες* (inscr. from Chios in Cauer 'Del.' No. 133) — the influence of a double consonant reduce diphthongs to simple vowels. Still more exactly does this correspond to the Irish tendency to change *a* before a nasal group to *i*, e.g. *imm* 'beside,' OGall. *ambi-*, Gk. *ἀμφί*.

Accordingly we find *ι* as the representative of *ε* before double consonants in the following words. First in eight verbal forms, seven of which are distinguished from other nearly related formations by the addition of a syllable beginning with *ν*: *ἴλλω* by the side of *εἴλλω*, *ἐλύω* (No. 527), *κίρ-νη-μι* by the side of *κερά-ω*, *κερά-νυ-μι* (No. 52), and the Lesb. inf. *κέρναν* = *κιρνάναι* Blass 'Hermes' xiii. 383, *κτίν-νυ-μι* by the side of *κτείν-ω*, *κτά-μεναι* (No. 77 b), *ὀριγ-νά-ο-μαι* by the side of *ὀρέγ-ω* (No. 153), *πίλ-να-μαι* 'approach' and *πιλ-νά-ω* 'make to approach' by the side of *πέλ-ας*, *πελά-ζ-ω*, which were discussed at No. 367, *πιτ-νη-μι* by the side of *πετά-νυ-μι* (No. 215), *πίτ-ν-ω*, *πιτ-νέ-ω* by the side of *πεσ-εῖν* (No. 214), *σκίδ-να-μαι* by the side of *σκεδ-άνυ-μι* (Nos. 294, 295), words in which the variation of the vowel is not confined to Greek alone. A similar relation exists between *σκίμπ-τ-ω* and *σκήπ-τ-ω* (No. 108), *χρίμ-π-τ-ω* and the rt. χρα-ν (*χραίνω*), *στίλ-β-ω* and *στερο-π* (cp. above p. 539). These forms bear to those

than four large books on this subject, of which I only mention (with reference to the note on p. 441) the most systematic: F. de Saussure 'Mémoire sur le système primitif des voyelles dans les langues Indo-Européennes' Leipz. 1879. Two confine themselves mainly to the Teutonic languages.

with the *e*-sound the same relation as that of the Lat. *quinque* to the Gk. *πέντε*, *πέμπε*, and that of *ting-o* to *τέγγ-ω*. We find groups of consonants containing sibilants in *ἴσ-θι* 'be,' from the rt. ἐc (No. 564) by the side of *ἐστί*, *ἔσται* etc., *νίσσ-ο-μαι* from the rt. νεc (No. 432) by the side of *νέ-ο-μαι*, *νόσ-το-ς*, *ἵζ-ω* by the side of *ἕδ-ος* rt. ἑδ (No. 280), *χθιζ-ό-ς* (p. 619) by the side of *χθές*, groups containing *ρ* in *ἰδ-ρύ-ω* by the side of *ἕδ-ρα* rt. ἑδ (No. 280), *λικ-ρι-φίς*, *λικ-ροί* by the side of *λεκ-ροί*, *λέχ-ριο-ς* (No. 540), *οἰκτιρ-μό-ς*, *οἰκτίρ-μων* (cp. the OAttic *οἰκτίρας* 'Gk. Verb' p. 255) by the side of *οἰκτείρ-ω* (Aeol. *οἰκτίρρω*). The length of the *ι* in *ἱμάτ-ιο-ν*, the stem-word of which is preserved by Hesych. *ἵματα· ἱμάτια*, is no doubt to be explained 712
by the supposition of an older *ἱσ-μα* for *ϝεσ-μα* (No. 565). Here too then we have two consonants. The length of the *ι* would be accounted for by the principle of compensation, like that of the Ion. *εἶμα* and the Dor. *γῆμα*. — Similarly *χελῑδών* (No. 187) for *χελενδών*, *χίλιοι*, beside the Aeol. *χέλλιοι* (Ahrens 58) probably belonging to the Skt. *sahásra*, *χῑραλέος* 'chapped' perhaps belonging to the Lat. *horrēre* (rt. *hors*) (Fick i³. 582 ff.). Many cases that belong here have been discussed by Walter 'Ztschr.' xii. 386, and others by Joh. Schmidt 'Voc.' ii. 329 ff.

In the case of the few words too where the *ι* that has come from *α* has no *ε* corresponding to it, there are for the most part double consonants,—*ἵππο-ς* by the side of *ἵκκο-ς*, where the Italian languages show the *e*-sound (p. 462), just as we have *κρί-νω* by the side of the Lat. *cer-no* (No. 76), *ῥίζα* (No. 515) Lat. *rad-ix*, *ῥίο-ν* beside *ὄρο-ς* (No. 504), *σκιρ-τά-ω* 'hop' (p. 697), which is related to *σκαίρ-ω* as the Lat. *sal-t-o* is to *sal-i-o*. The case of the long *ι* of *Ἐρῑνύ-ς* (No. 495) is the same as seemed probable in that of *ἱμάτιον*. Here a *j* has fallen out after *ν*. — *ὀπ-ῑπ-εύ-ω* along with *-οπ-ἰπ-α-ς* (p. 463) with the peculiar weakened reduplication in the second syllable has for its *ι* the analogy of *δί-δω-μι*, *βι-βρώ-σκ-ω*, in which the reduplication syllable uses the same vowel, *-οπῑπας* that of *πῑ-φαύσκω* for the length of the vowel. On *ὀνίνημι* see p. 715.

The remaining cases are but few in number: *κνίδ-η* 'nettle' beside the OHG. *hnazza* and *nezila*, and *κναδάλλειν* 'itch' (Fick i³. 537), *πίτ-υλο-ς* 'the plash of an oar or of drops of water,' probably belonging to the rt. πετ (No. 214) (Fick i³. 659),

whence comes *πιτ-νέ-ω*. Possibly the *υ* has here had something to do with the thinning of the vowel, as in *ἱδρύω*, *Ἐρι-νύ-ς* and in the Aeolic and Homeric *πίσυρες*. We might perhaps ascribe the same influence to the *ι* in *σφι-σί* by the side of *σφέ* and in *ἴδιο-ς* discussed at p. 635 (cp. *ἴσθι*, *λικριφίς*). The variation between *ὀψέ* and *ὀψι-* in *ὀψι-τέλεστο-ς*, *ὀψι-μαθ-ής*, *ὀψί-νοο-ς* reminds us of Latin forms like *beni-gnu-s* by the side of *bene*. Still the origin of the vowel is by no means evident. The old grammarians regarded *ὄψι* used separately as Aeolic (Ahr. 'Aeol.' 80). Conversely we find *ε* for the *ι* of *ἄγχι* (No. 166) in the Homeric compound *ἀγχέ-μαχο-ς*. Perhaps both vowels arose by weakening from *ει* (cp. *ἀμαχεί*). — *ἰτ-αλό-ς* by the side of *vit-ulu-s* (No. 211) and the Skt. *vat-sá-s* had perhaps originally a double *τ* in Boeotian fashion for *τσ*. — We are compelled anyhow to acknowledge the change of *a* to *i* without special reason in *σκι-ά*, *σκί-ρο-ν*, *σκῖ-ρο-ς* (No. 112), *χρί-ω* from the rt. *ghars* (No. 201), in *πῖ-νω* by the side of the Aeolic *πώ-*
713 *νω* (No. 371), in *μι-νύ-ω* (No. 475) where several related languages share this weakening, in *σπι-θ-αμή* 'span' from the rt. σπα (No. 354) the primary meaning of which is here prominent, and in the related glossematic words *σπιδής*, *σπίδιος* 'extended[1].' For a discussion of the long *ι*, which we find, in connexion with metathesis, e. g. in *κρῖθ-ή* (No. 76), *βρῖ-θω* (p. 475), *ῥῖπ-τω* (No. 513), *τρῖβω* (p. 223), *σφρῖγάω* (p. 700), in the place of an original *a*, see Delbrück 'Studien' i. 2, 131 ff.

In non-Attic dialects the phenomenon is far commoner. We often find in Aeolic, as in Doric, an *ε* replaced by *ι* before vowels, e. g. Boeot. *ἰών* = *ἐών* (rt. ἐc), Cypr. *κατ-έ-θι-jαν* = *κατ-έ-θε-ν*, Lacon. *σιά* = *θεά*, though in this case both sounds have not seldom arisen from an older *ει*, as in *χρύσ-ιο-ς*, Ep. *χρύσ-ειο-ς*. The *ι* is alike Doric and Ionic in *ἰσ-τία*, Ion. *ἰσ-τίη* = *ἐσ-τία* (No. 610), again, that is, before a double consonant, as also in the Cyprian *πιλ-νό-ν· φαιόν* (Hesych.), which is undoubtedly related to *πελό-ς*, *πελιό-ς*, *πολιό-ς* (No. 352). The Cyprian dialect (cp. M. Schmidt 'Ztschr.' ix. 290 ff.) shows the softening

[1] Bréal 'La mythe d'Oedipe' ('Mélanges de Mythologie et de Linguistique' p. 169) assumes a change of *a* to *i* in order to refer *Ἰξίων* to an assumed *Akshīvan*, supposed to mean 'Car-man,' 'Wheel-man,' i. e. the sun-god (No. 582). Cp. however No. 24 b.

to a still greater extent. Here and in the Arcadian dialect of Tegea (Michaelis 'Jahn's Jahrb.' 1861 p. 591) the preposition ἐν occurs as ἰν and, as in Latin, stands for εἰς as well (No. 425). To the forms in which ι has taken the place of ε the Paphian ἴγγια· εἰς (Hesych.) no doubt belongs. We may assume a form σιγ-για, which would then stand for σεγ-για. The stem is that discussed at No. 599, preserved in the Latin *sem-el*, *sim-plex*, and the diminutive *sin-g-uli*. The γ of ἴγγια may stand for κ. Perhaps -ια is the same suffix as occurs in *un-c-ia* (cp. on No. 445), though if so we should certainly have expected ἰγγίᾱ in Greek.

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2. υ THE REPRESENTATIVE OF AN ORIGINAL α.

The softening of an original α-sound to the duller υ might be shown to have extended over about the same range as that into ι just discussed. As there ε was the intermediate step between α and ι, so here ο comes between α and υ. And in fact the υ here to be discussed very often has a corresponding ο either in the dialects of Greek itself or in Latin. But since the Gk. υ is a proportionally late sound, it seems probable that it was always immediately preceded by the fuller u-sound, 714
and that consequently the series in this case was the following: α, ο, u, ü. It is only when so comprehended that this shifting of the vowel is seen in its true character, i. e. as a dulling of the sound. In complete accordance with this is the fact that the Aeolic dialect, which, like the Italian languages, and most unlike Ionic, shows in its various branches a very old dulling of its vowels, is specially prone to this particular change. I have discussed this point at greater length in my essay 'Zur gr. Dialektologie' 'Nachr. d. Gött. Ges. d. Wissensch.' Nov. 1862. Compare also Leo Meyer i. 121. Schleicher 'Compend[3].' 59 justly condemns the attempt at explaining every υ by the supposition of forms with ϝα. It is only where, as in the case of γυνή, Boeot. βανά, Goth. *qvinô* (p. 479), there are clear indications of this group, that we can venture to assume ϝα as preliminary to υ.

In this change too we ought certainly to regard the adjoining consonants as instrumental. The nasals and the sounds ρ

and λ, in the case of which we find the greatest variation in the neighbouring vowels, come in for the greatest share of consideration here, and among the explosives, as Sonne 'Ztschr.' x. 130 remarks, specially the gutturals. Here too we must refer to Joh. Schmidt's exhaustive investigation ('Voc.' ii. 333 ff.). There are but a very few word-stems which have *υ* in the place of *α* consistently throughout all their ramifications. Perhaps the only cases are *λύκο-ς* by the side of the Indo-Germanic *varka-s* (No. 89), and Lat. *lupu-s*, *μορμύρ-ω* (No. 477) by the side of the Skt. *mar-mar-a-s*, *μύλη*, *μύλο-ς* by the side of *molo* (No. 481), *μύρ-ο-ν* 'salve,' *μύρειν*, *μύρεσθαι* 'flow,' perhaps belonging to the Goth. *smairthr* 'fat,' ON. *smjörr* 'butter' (Fick i³. 836), OIr. *smir* 'marrow,' *νύξ* by the side of the Skt. *nák-ti-s* and the Lat. *nox* (No. 94), *ξύν*, *σύν*, discussed in its relation to *con-*, *cum* on p. 544, *ὄνυξ* by the side of the Skt. *nakhá-s* (No. 447), *πύξ*, *πυκ-ινό-ς* (No. 384), cp. Lat. *pug-nu-s*, by the side of the rt. πακ, παϝ (No. 343), where the difference of vowel is attended by a modification of the meaning, *φρύγ-ω* (aor. p. *ἐ-φρύγ-ην*) by the side of the Indo-Germ. *bhurg* (No. 162), which is discussed along with *χρῡσό-ς* (No. 202), *βρῡχάομαι* 'roar' (= Skt. *barh* 'roar,' of elephants, and the Low Germ. *bölken*), *τρῡπάω* (No. 239) discussed by Delbrück 'Stud.' i. 2, 136.—Elsewhere the variation occurs only in isolated words. By the side of *ἀγείρω* (cp. *gre-x* Van. 209), *ἀγορά* we have the Aeolizing *παν-ήγυρι-ς* and *ἀγύρ-τη-ς*. We may learn how widely the dialects diverged in this stem from Hesychius's glosses *ἀγαρρί-ς· ἄθροισις* (i. e. *ἄγερ-σι-ς*), *ἄγυρι-ς· σύνοδος*, *ἀγωρεῖν· συναθροίζειν*, to say nothing of words which we have good grounds for suspecting. — *γῦρ-ι-ς* and *γρῦ* were
715 discussed under No. 130 along with the words coming from the st. *gar*. — *κύκλο-ς* and *κίρκο-ς* (No. 81) both correspond to the Skt. *ḱakrá-s*, as too we find an older by-form *καλινδέω* as well as *κυλινδέω*. — By the side of *ὄνομα* (No. 446) there have crept into ordinary Greek *ἀν-ώνυμο-ς* (Ep. *νώνυμν-ο-ς*), *συν-ώνυμο-ς* which resemble the Aeol. and Dor. *ὄνυμα*. Perhaps dissimilation was the object of the change, though in such cases as *ὄτοβο-ς* and *ὑψόροφο-ς* dissimilation failed to produce any effect. — By the side of the widely-spread suffix *-τορ*, nom. *-τωρ* we find *μάρ-τυρ* (No. 466), the suffix of which reminds us of

the similar dulling in the case of the Lat. *datū-ru-s* by the side of *da-tor* and the Skt. gen. abl. *mātur* for **mātars*. — To these we may also add the *υ* of *Δειπάτυρο-ς* discussed on p. 617. — Perhaps *σκύφος* 'vessel,' 'goblet,' is only a by-form of *σκάφος* (No. 109). — *σπυρ-ί-ς* 'basket' (p. 503) is probably related not only to the Lat. *spor-ta, sport-ula* but also to *σπεῖρα* (Old Att. *ΣΠΕΡΑ*) 'ball of thread' and *σπάρ-το-ν* 'string,' Lith. *sparta-s* 'band' (under No. 389), so that the common idea is that of 'winding.' — Perhaps *πύλη* 'door' is the fem. of *πόλο-ς* 'pivot,' 'pole' from the rt. πελ 'turn,' discussed on p. 470. — There is no doubt that the old word *πρύ-τανι-ς* is connected with *πρό* (No. 380), even though we should choose to follow Ahrens 'Aeol.' 84 in rejecting the reading *πρότανις* in a Lesbian inscription. The suffix is related to that of *ἐπ-ηε-τανό-ς* (No. 585) and the Lat. *diū-tinu-s* as the Lat. *humili-s* is to the Gk. *χθαμαλό-ς*. — *φύρκος· τεῖχος* and *φοῦρκος. ὀχύρωμα* (Hesych.) certainly belongs to the rt. φρακ (No. 413). Cp. Joh. Schmidt 'Voc.' ii. 333. — It is very questionable on the other hand on the score of formation and meaning whether, in spite of what Misteli says ('Ztschr.' xvii. 173), *πρύμνα* 'puppis,' *πρυμνό-ς* 'extremus' are to be referred to *πρό*, while there can be no doubt that they are connected with *πρέμνο-ν* 'root' or 'foundation,' and perhaps with *πέρ-ας* (No. 357). — The same relation is borne by the Homeric *προ-θέλ-υ-μνο-ς* (No. 316) 'from the very ground,' and the plural substantive *θέλυμνα* in Empedocles, to Hesychius's *θέλεμνο-ν*. We may perhaps regard these and other Homeric words as real Aeolisms, of which there are by no means few in the Iliad and Odyssey, and so explain *ὑπό-βρυχ-ο-ς, ὑπο-βρύχ-ιο-ς, περι-βρύχ-ιο-ς* (Soph. 'Ant.' 336) 'deluging,' by the side of *βρέχ-ειν* 'wet' (No. 166 b), *δια-πρύσιο-ς* 'penetrating,' by the side of *διαμ-περ-ές*, certainly *πίσυρ-ες*, Lesb. *πέσσυρ-ες* (p. 488), *ἄμυ-δι-ς* (No. 449), *ἄλλυδις*, which we have other means of proving to be Aeolic, the very old *ἀμύμων* (No. 478), due perhaps to the traditional dialect of the Aeolic bards, by the side of *μῶμο-ς*, which we shall not follow Hugo Weber ('Philol.' xvi. 712) in connecting with *ἀμύνω*. I also class *αἰσυ-μνή-της* (*θ* 258) and the proper name *Αἴσυμνο-ς* (*Λ* 303) in 716
the same list. The former must stand for *αἰσο-μνή-τη-ς* and

mean originally 'the man who is mindful of the *αἶσα*' (No. 569), 'the equal share,' who is careful *μή τίς οἱ ἀτεμβόμενος κίῃ ἴσης*. Compare *μνήσασθε δὲ θούριδος ἀλκῆς, μνήμονα φόρτου*. This etymology, given among others even in the 'E. M.,' is certainly simpler than Döderlein's from *ὑμνεῖν* ('Glossar.' 170) in its original meaning of 'weaving.' — Perhaps we may reckon among these Aeolisms the Homeric *πύ-μα-το-ς* 'the last,' which is related to the Osc. *pos-mo-s* 'the last,' recognized by Ludw. Lange ('Die osk. Inschr. der tabula Bantina' p. 63), as *ἑβδό-μα-το-ς* is to *ἕβδο-μο-ς*. *πύ-μα-το-ς* then stands for *ποσ-μα-το-ς* like *ἔ-μεναι* for *ἐσ-μεναι* and is to be referred to the same st. *pas*, which we find preserved in the Skt. *paç-ka-s* 'behind,' 'later,' *paç-ki-má-s* 'the last,' in the Zd. *paç-ca* (adv.) 'behind,' *paç-nē* (prep. c. acc.) 'behind,' in the Lat. *pos, post, post-eru-s, postrē-mu-s, pō-ne*, in the Umb. *pus, pust, pus-tru*, and in the Lith. *pas-kùi* (adv.) 'later,' *pás-k-ui* (prep.) 'behind,' 'after,' and hence is an isolated remnant of a family of words which has spread widely elsewhere. Cp. also *πύννος* (or *πύνος*)· *ὁ πρωκτός* Hesych. (Fick i³. 672). — The Homeric *ἐπι-σμυγ-ερῶς* 'piteously,' 'woefully' probably belongs to the OHG. *smāhi* 'small,' 'slender,' and so to a rt. *smak* from which Fick i³. 835 also derives *σμικ-ρό-ς* (above p. 693).— *βυθ-ό-ς, βυσσό-ς* by the side of *βαθ-ύ-ς, βένθ-ος* are completely isolated. Cp. above p. 473.

The conditions under which *υ* takes the place of an *α*-sound in Lesbian Aeolic are discussed by Ahrens 78, 81 ff. Even Boeotian, though elsewhere averse from this change, takes the same course at all events in the treatment of the diphthongs *οι* and *ω*, e. g. in *ϝῦκο-ς* = *ϝοῖκο-ς, δάμυ* = *δήμῳ*. The Tegeatic and in part Cyprian forms *ἀπύ, ἄλλυ, κατύ* (Michaelis 'Fleckeisen's Jahrb.' 1861 p. 591) completely agree with Lesbian Aeolic. We might arrive at more exact views on the relation of the different dialects to each other from a study of proper names, for some show this very change of vowel, e. g. *Ἐφύρα* (cp. *ἔφορος*) from the rt. *ϝορ*, the 'Watch' (No. 501), the Corinthian *Σίσυφος* (p. 512), whose very name stamps him as *Αἰολίδης, Στενύ-κλαρο-ς*, i. e. *στενό-κληρο-ς* (cp. *στενο-χωρία*) in Messenia, *Ζάκυνθο-ς* (p. 617), words which may be quoted as prominent examples of this change of vowel.

(3) ι AND υ INTERCHANGED.

These two vowels are phonetically not far apart. The older grammarians were very ready on this account to hold them as nearly equivalent etymologically, a mistake against which 717
the comparative study of languages has uttered warnings from the beginning. For all this we must not absolutely deny all connexion between the two.

The peculiar sound of the vowel υ is clearly the ground of the objection which, though, as γλυκύ-ς shows, it was not absolute, the Greeks nevertheless felt to the repetition of υ in two consecutive syllables. In such cases υ is often replaced by ο: κο-χύ· πολύ, πλῆρες (Hesych.) from the rt. χυ χέω (No. 203), μορ-μύρ-ω (No. 477), πορ-φύρ-ω (No. 415), κόκ-κυξ (No. 66). This course seems the older one. It probably dates from the time when instead of the thinner υ the fuller *u* was still heard. In view of this explanation we may compare the substitution in the Cyprian dialect of ο for υ. There is abundant evidence of this change, which is discussed by M. Schmidt 'Ztschr.' ix. 306, and it is no doubt to be regarded as a change not so much from υ as from the older *u* to the related *o*-sound. The Paphian θοράνας ἕξω, for which M. Schmidt is probably right in reading θοράνδις (= θύραζε), is thus exactly parallel to the Lat. *foras* (No. 319), and ἰγκαφότευε = ἐγκαταφύτευε to the Lat. *fo-re* (No. 417). No trace of this peculiarity is to be found in the inscriptions. — The other course is to represent υ by ι, which was done most clearly in φῖ-τυ-ς, φι-τύ-ω = *fu-tu-o* from the rt. φυ (No. 417). It is due no doubt to this objection to the repetition of υ that in Greek, where -υλο is a common diminutive suffix, the Lat. *mu-tilu-s* is represented by μί-τυλο-ς, while the form μύτιλο-ς is also to be found in Hesych. with a kindred meaning, and the name of the town has both forms, Μυτιλήνη and Μιτυλήνη. It is not quite clear what the origin of the word is, though it seems natural to connect it with μιστύλλω and the rt. μι μινύ-ω (No. 475), in which the ι, as we saw, comes from an older *a*. — ψίθ-υρο-ς in its relation to ψύθ-ος was discussed on p. 530. — The converse change, that of ι to υ, appeared to us probable in κι-κύ-ω (ταχύνω) under No. 57.

Besides these there are but few instances of the interchange of *ι* and *υ*. Four forms, which evidently come from stems in *υ*, have this in common, that their vowel becomes *ι* when followed by another vowel: *δρί-α* (pl.) 'bushes,' belonging to *δρῦ-ς* (No. 275) explained by Joh. Schmidt 'Voc.' ii. 331 as from **διρϝ-ο-ν* (cp. *δόρυ*), *θί-ασο-ς* 'rout,' which cannot be separated from the *θυιάδες* and consequently belongs to the rt. θυ (No. 320), with the same suffix which meets us in *πέτ-ασο-ς* 'hat' (No. 215), and is established by Indic analogies as well by Aufrecht on Uggvaladatta 271, *σί-αλο-ς* 'hog,' a kind of diminutive from *σῦ-ς* (No. 579), and *ὑπερ-φί-αλο-ς* 'overbear-
718 ing,' which, along with Aeschylus's *ὑπέρφευ* and the commoner *ὑπερ-φυ-ής*, we follow Buttmann 'Lexil.' ii. 213 in deriving from the rt. φυ (No. 417) in the sense of 'over-grown,' 'luxuriant.' There is a different relation of sounds in the evidently reduplicated *πέμ-φιξ* (st. *πεμ-φῑ-γ*) 'breath' (by the side of *πεμ-φί-ς πεμ-φίδ-ος*), which probably belongs to No. 652 (p. 509). We find besides in a few noun-formations like *ὀλι-βρό-ς* by the side of *lubri-cu-s* (No. 544), *μόλιβο-ς, μόλι-βδο-ς* by the side of *μόλυβο-ς, μόλυβδο-ς* (No. 552) and in a few roots like *λύγ-ο-ς* by the side of *liga-re* (No. 149), λιφ by the side of the Lat. *lub-et, lib-et* (No. 545) and the Skt. *mid* by the side of μυδ (No. 479) a variation between *i* and *u* extending beyond the region of Greek, though we cannot, as in the cases discussed on p. 58, explain the variation to be a double series of forms with a differentiation of meaning. The variation between *u* and *i* in the derivative termination *-υχο-ς* (*-ιχο-ς*) is discussed by Ahrens 'Rhein. Mus.' xvii. 362, where he treats specially of *Μούνιχο-ς* by the side of *Μούνυχο-ς, Μουνιχία, Μουνιχίων, Μόριχο-ς* by the side of *Μόρυχο-ς* and similar proper names. But I cannot agree with the same scholar in the free use he makes of this change of sound ('Philol.' xviii. 210) in order to explain mythological names. — With reference to the dialectic change of *υ* to *ι* which we meet with in Lesbian Aeolic e. g. in *ἴπερ*, and among the Cyprians e.g. in *ἰμίτραόν* = *ὑπομίτρασον*, we may probably decide that it is a tendency to that Itacism, which finally led the Greeks universally to identify *ι* and *υ* completely. The converse of this change we meet with in the one isolated instance of the Cretan *Ὑπτάγρα*,

'Υππασιά ('C. I.' 2554, 106), which clearly belong to ἵππο-ς (Voretzsch p. 27), though, to be sure, this was a word in which there was originally an *a*.

I. Vowels prefixed and inserted.

The extreme readiness of the old grammarians to assume that the various vowels had been prefixed or inserted, in order to arrive at desired etymologies, has been replaced by a proportionate disinclination on the part of the linguistic science of the present day to admit the existence of elements which are foreign to the significant body of the word, and owe their existence to convenience of articulation or the preference for certain conjunctions of sounds[1]. In view of the fact that 719
words, when once fixed in form at an early period in the life of language, show no further growth in their significant parts, but rather decay, we shall find good reason to be very careful in making such assumptions. The prothesis of consonants, e.g. of an *s* before consonants of the most different kinds, a process which several good scholars still think is to be allowed, is probably not to be established for a single Greek word. Wherever we find a word with two forms of consonantal initial, one full and the other meagre, we have good grounds for assigning the priority to the former. At the most the only letters that we can call prefixed are the parasitic *g* and *d*, which, as was shown at length above, are produced naturally before *v* and *j* even when initial. This prothesis however, if carefuly examined, is really an affection of single consonants. In the middle of a word too auxiliary consonants like the δ in ἀν-δ-ρός, and the β in μεσ-ημ-β-ρία are confined to a small circle. It will be readily seen that here too these sounds do not make their way into the body of sound as a foreign element, but are developed as natural neighbours from the preceding sounds, in the effort to connect

[1] Pott ii². 394 says: 'It needs no great sharpness to explain such vowels as meaningless prefixes.' But even Pott, though describing the vowel in many cases as 'obscure,' now and then acknowledges the 'possibility' of prothesis.

these with those which follow. On the other hand the vowels hold in general a more subservient position in language. It is generally recognized that they occasionally introduce themselves at the beginning and in the middle of a word, or, to speak more exactly, result from the semivocalic sound attendant on certain consonants [1]. It only remains to distinguish more exactly the conditions and the range of this phenomenon in Greek, and in so doing to insist that this process is to be re-
720 garded as nothing more or less than a purely physical one, and is hence to be explained, like any other of its kind, physiologically.

1. Evolution of a Vowel at the beginning of a word.

The old grammarians called the prefixing of a sound *πρόσθεσις*. Lobeck uses the word in the sense they attached to it in the discussion in the first chapter of his 'Elementa pathologiae,' 'De prosthesi et aphaeresi.' Pott, who discusses this question at length ii[1]. 125 ff. and returns to it ii[2]. 384 f., uses the word prothesis, which is more apt, and for this reason we have followed him in so doing, and call vowels thus arising 'prothetic vowels.' The frequency of the phenomenon, espe-

[1] The whole of our present subject is treated with great learning and ingenuity by Joh. Schmidt in his 'Zur Geschichte des indogermanischen Vocalismus' Part ii. He there advocates the use of the Indian term *Svarabhakti*, that is 'fragmentary vowel' ('*Vocalbruch*') 'fraction of a vowel' ('*Vocaltheil*') for the insignificant vowel which is produced by a liquid or nasal, but can develope into an 'independent vowel.' Apart from the fact that the Indians only used this term for a vowel sound developed *after r* and *l*, though it is clear that we must treat as one both this and the vowel which is developed before these and other sounds (Rig-Veda-Prātiçākhja' edited by Max Müller p. xii.) I do not see why we should diversify our grammatical terminology by this outlandish word. '*Vocalentfaltung* ('the evolution of a vowel') is a more exact and intelligible term for the same thing. It is the translation of the Greek *ἀνάπτυξις*. Cp. Crameri 'Anecd. Oxon.' i. 63. 13 *τὸ πνύω κατ' ἀνάπτυξιν γίνεται πινύω ἔνθεν τὸ πινυτή.* — In the beginning of a word, at all events, a vowel so produced apparently goes beyond its proper province, which is that of continuous sounds.

cially before double consonants, but also before simple liquids and nasals and before the digamma (p. 578 ff.), is characteristic of Greek and distinguishes it in many cases from Latin. But analogies from related and non-related languages are to be found in abundance. The most familiar instance is the prefixing of a vowel of this kind in the Romance languages, for which see Diez 'Gr.' i². 224 ff. Forms like the Spanish *estar* = *stare*, Provenç. *estable* and *istable* = *stabulum* have precedents in late Latin, according to Corssen (i¹. 289, ii². 286, 'Ztschr.' xi. 341) since the fourth century: *istatuam*, *ispirito*, *Isticho* = *Sticho*[1]. Diez adduces similar forms with *e* and *i* from Basque and Hungarian, with *y* from Cymric, Pott from Arabic, Persian and Ossetic. On prothetic vowels in Slavonic cp. Miklosich 'Lex.' pp. 1 and 459. Lithuanian too shows forms like *iszkadà* = Germ. *Schade* ('injury'), *iszkalà* = Germ. *Schule* ('school'), and even Vedic Sanskrit: *i-raǵ-jā-mi* = *rego* (rt. *raǵ* No. 153), *i-radh* 'seek to win,' by the side of *rādh*. In Armenian an *a* or *e* is evolved before every initial *r* (Hübschmann 'Ztschr.' xxiii. 8). In Ossetic, *a*, the heaviest of all the vowels, is employed for this purpose. Bopp 'Vgl. Gr.' i². 121 quotes several instances in which metathesis has occurred in addition: *artha* 'three,' cp. Skt. *trajas*, *arfug* 'eyebrow,' i. e. Skt. *bhru-s* and the Gk. *ὀφρύ-ς* (No. 405) which arose in the same way. In the Sicilian dialect too, as Wentrup ('Beiträge zur Kenntniss der Sic. M.' p. 154) shows, an *a* is 721
constantly prefixed, which, e. g. in *aruta* = Gk. *ῥυτή* is not the remains of a preposition, but must be a purely phonetic element. The two analogies last mentioned have a special interest for the student of Greek, inasmuch as here it is just the fuller vowels *α*, *ο* which are used by the side of *ε* as prothetic vowels in preference to others. The Greek forms that

[1] Lachmann on Lucret. 231 shows how this parasitic *i*, corrupted by copyists even into *in*, *hi*, *hy*, and occasionally replaced by *e*, became the source of numerous errors in our manuscripts. Bekker 'Hom. Bl.' i. 134 calls attention to this prothesis with reference to Greek words. Max Müller ii. 194 presents us with many similar phenomena from various sources, specially from Celtic. Cp. Zeuss 'Gr. Celt.²' p. 120 and Terrien-Poncel 'Du langage' (Paris 1867) p. 64.

belong here have been especially discussed by Savelsberg and Crecelius in Hoefer's 'Ztschr.' iv., by Christ p. 19, 33, by Leo Meyer i. 220, so that no more than a short review of the subject will be necessary here. Since this kind of vowel arises naturally from the 'voice' inherent in all sonant consonants, the particular shade of the sound, so to speak, is very changeable. Accordingly we have instances of a variation between different vowels, even in one and the same root, e.g. *ἀ-μέργ-ω* and *ὀ-μόργ-νυ-μι* (No. 151), *ὀ-σταφ-ί-ς* (Athen. iii. 105) = *ἀ-σταφ-ί-ς* (No. 219), *ἀ-τρύ-ν-ων· ἐγείρων* (Hesych.) by the side of *ὀ-τρύ-ν-ω*, with which Lobeck 'El.' i. 81 connects also the proper names *'Α-τρεύ-ς* and *'Ο-τρεύ-ς*, which would accordingly mean 'inciter.' Pott ii². 426 suggests 'interritus' (rt. τρεc) as the meaning of *'Α-τρεύ-ς*, which would thus = *ἄ-τρεστο-ς*. Similarly 'C. I.' No. 6280 l. 18 *ἀτρῆες ἀναγκαί*. Related words will be found above at No. 244. There are good grounds for Christ's view (19) that the shade of the prefixed vowel is generally decided by the following one, hence we have *ἀ* in *ἄ-σταχ-υ-ς* (No. 219), *ἀ-σπάλ-αξ* (No. 106), *ἀ-σπαίρ-ω* (No. 389), *ὀ* in *ὄ-νο-μα* (No. 446), *ὀ-μόργ-νυ-μι*, *ὀ-τρύν-ω*, *ἐ* in *ἐ-χθές* (No. 193), *ἰ* in *ἰ-κτί-ς* ('a kind of weasel') by the side of Hesychius's *κτίς*. Similarly in Zend we find occasionally the vowel of the root prefixed to an initial *r*: *i-rith* for *rith*, *u-rud* for *rud* (Schleicher, 'Comp.³' 50, Justi 359, 18). It must be admitted though that there is no consistency in Greek, as is shown by *ἀ-μέλγ-ω*, the Aeolic *ἄ-σφι* = *σφι*, *ὀ-λισ-θεῖν*, *ἐ-λαχ-ύ-ς* (No. 168).

A prothetic vowel precedes several consonants in the following cases, from which we have excluded all of doubtful etymology. The vowel appears most frequently before groups containing a sibilant, as in *ἀ-σκαρ-ί-ζω*[1] 'hop,' by the side of the synonymous *σκαίρω*, *σκαρίζω* and *σκιρ-τά-ω* (p. 712), *ἀ-σταφ-ί-ς* 'raisin,' by the side of *σταφ-ί-ς* (p. 213), in *ἄ-στάχυ-ς* 'ear of corn' (*B* 148), more commonly *στάχυ-ς*, which must be expanded from the rt. στα (Fick i³. 820). — On *ἀ-στήρ*, *ἀ-στράπ-τ-ω*, *ἀ-στραπ-ή* by the side of *στεροπ-ή*

[1] *ἀσκαίρω* seems to have come into vogue only from a false reading in Quint. Smyrn. v. 495, where Köchly writes *μέγα σκαί-ρουσι*.

cp. No. 205. — Lobeck 'El.' i. 16 is probably right in regarding *ἀστρηνές · δύσθετον, σκαιόν, ὀξύ* (Hesych.) as identical 722
with *στρηνές* for which also, among other meanings, that of *ὀξύ* is given. If we take 'hard,' 'rough' to be the primary meaning, it becomes probable that *strenuu-s* and the words discussed under No. 222, *στερ-εό-ς* etc., are also related. — The Thessalian name of the starling, *ἀ-στρα-λό-ς* was mentioned at No. 521. — The Homeric *ἀ-σπαίρ-ω* 'quiver' bears to the later *σπαίρ-ω* (No. 389), *ἀ-σπάλ-αξ* 'mole' (Plut.) to *σπάλαξ* (No. 106) and *ἀ-σπάραγο-ς* 'asparagus' to the Zd. *çparegha* (p. 503) the same relation, that *ἀ-σκαρ-ί-ζω* does to *σκαρ-ί-ζω*. — Less evident is the relation of *ἀ-σφάραγο-ς* 'gullet,' 'wind-pipe' to *σφάραγο-ς* 'noise' (No. 156), while the Lesbian Aeolic pronominal forms *ἄ-σφι*, *ἄ-σφε* (Ahrens 125) = *σφί*, *σφέ* are among the most transparent instances of prothesis. Of entirely the same nature is the *α* of *ἄ-σσα* = *τινά*, which comes from an older *ἀ-τja* (cp. p. 490). Ahrens ('Formenl.' p. 41) has tried to explain the *α* to be the result of a mistake, supposing e. g. *ὁποῖ' ἄσσα* to have arisen through a mistaken division of the words from *ὁποῖά σσα* (*σσα* = *τι-α*). But this is opposed by the fact that in Attic Greek *ἄττα* occurs after other vowels as well, e. g. Plato 'Phaedo' p. 60 e *δὴ ἄττα*, and 'Theaet.' p. 145 c *γεωμετρίας ἄττα*, and who will believe that a word existing in the Attic period owed its existence to a pure blunder? Even the ancients were so far puzzled by the *ἀ* that some grammarians felt compelled to write *ἄσσα*, that is they distinguished the indefinite here from the indirect interrogative only by its special use (Lobeck 'El.' i. 142). To suppose prothesis is the simplest solution of the difficulty. — *ἄ-φλαστο-ν* is no doubt correctly connected by Fick i³. 699 with the Skt. *bhṛshtí-s* 'corner,' 'edge,' Lat. *fast-ig-iu-m* and OHG. *brort* 'fore-part of a ship.' — The relation of *ὀ-σφύ-ς* 'hip' to the synonymous Skt. *sphik'* was treated of on p. 699 along with the by-forms *ψόα*, *ψύη* 'region of the loins.'

There are at any rate two certain instances of the prothesis of a vowel before the double consonants *ξ* and *ψ*. One, it is true, is a borrowed word. Lobeck 'El.' i. 144 says '*ἐξατράπης* et *ἐκσατραπεύειν*, quae in Inscrr. et libris

leguntur, excusationem peregrinitatis habent.' Since Hesych. has preserved the form *ζατράπης* as well, it appears that we have here different attempts to reproduce the foreign initial. According to Benfey ('Altpers. Keilschriften' p. 18) the Persian form was *khshatra-pa-van* 'kingdom's lord;' but it is perhaps the shorter form *khshatra-pā* which underlies the Gk. word (Pott W. i. 228). — The same sound appears before *ψ* in *ἐψία* or *ἐψία* 'game,' along with the Homeric *ἐψιάασθαι* 'play,' from which we cannot separate *ψιάζειν* (Hesych.) *ψιάδδειν* (Aristoph. 'Lysistr.' 1304).

723 It is but seldom that a vowel is employed to support a double mute. The only certain instances are *ἰ-κτί-ς* and *ἐ-χθές*. The former denotes a kind of weasel, which is called *κτί-ς* in Hesych., and in the derived adjective *κτίδ-εο-ς* 'of weasel's skin' (*K* 458), appears with a consonantal initial. On *ἐ-χθές* by the side of *χθές* we need only refer to p. 675. I am inclined also with Fick ('Ztschr.' xxii. 383) to refer *ἰ-χθύ-ς* (see Bugge 'Bezzenb. Beitr.' iii. 102) with the Lith. *žuvi-s* to a st. *ghu* (*ghju*), and perhaps too to connect *ἰ-κτῖ-νο-ς* 'falcon' with the synonymous Skt. *çjēná-s* (primary form *ḳjaina*).

Though a mute and a liquid are a favourite beginning for a word in Greek, there are a few cases in which prothesis has taken place. As to *ἀ-κρο-ά-ο-μαι* (No. 62) and *ὀ-κρυ-ό-ει-ς* (No. 77) doubt may still be felt. But *ὀ-τρη-ρό-ς*, *ὀ-τρα-λέο-ς*, *ὀ-τρύ-ν-ω* have, as we have shown under No. 244, such unmistakeable by-forms without the vowel that we cannot doubt how their vowel arose. On the other hand we saw on p. 468 that a different origin was more probable for the *ἀ* of *ἄτρακτο-ς*. — By the side of *τρυγη-φάγο-ς* 'fruit-eater' are found the by-forms *ἀ-τρυγη-φάγο-ς* and *ὀ-τρυγη-φάγο-ς* in Hesych. — *ὄ-βριμο-ς* in its relation to the rt. βρι we discussed on p. 532. The same vowel initial is shown by the proper names *Ὀβριμὼ Βριμώ, ἡ Περσεφόνη*, *Ὀβριάρεως* = *Βριάρεως* (Lob. 'El.' i. 80). — The poetical words *ὄ-τλο-ς* 'sorrow,' *ὀ-τλέ-ω* 'suffer,' *ὄ-τλη-μα* and probably *Ἄ-τλα-ς* too are so near in meaning to the rt. τελ, ταλ (No. 236), that they cannot be separated from them. Of the Skt. rt. *jat* 'bind,' 'strive,' with which Fick i³. 730 connects these words

the same cannot be said. The singular word *ἀφλοισ-μό-ς* O 607, *ἀφλοισμὸς δὲ περὶ στόμα γίγνετο* was explained, it is true, in Apollonius's Lexicon, which relied on a reading '*γίνετ' ὀδόντων*' to be a sort of noise, but we shall be the more inclined to take *ἀ-φλοισ-μό-ς* to mean 'foam' because *φλοῖσ-βο-ς*, mentioned at No. 412 e has also this meaning.

While in the words just discussed the two consonants supported by the prothesis of a vowel have both been retained, we can produce a second list in which, though the vowel served the same purpose, it was not able to prevent the loss of one of the two consonants. Here belong rt. ὁ-δυc (No 290) for *ὁ-δϝις*, *ὁ-λισ-θ-άν-ω* from the rt. ϝλιτ, and consequently to be traced to *ὁ-γλισ-θ-αν-ω* (No. 544), *ὁ-λιβ-ρό-ς* which is discussed at the same place. In *ἠπανία* 'lack,' there is probably a trace of the double consonant preserved in the length of the vowel (cp. Fr. *épée*); which double consonant we probably have in *σπάνι-ς* (No. 354).

As regards the simple consonants, a prefixed vowel is least to be wondered at in the case of liquids and nasals. 724
It is sometimes even hard to tell which of the two vowels, that at the beginning of the word, or that following the nasal, is the older. The analogy of the related languages[1] however points to prothesis in the following cases: the *ἐ* of *ἔ-ρημ-ο-ς* by *ἠ-ρέμ-α* and *ἀ-ρά-μεναι* (No. 454), *ἐ-ρεύγ-ω* (No. 143), *ἐ-ρείκ-ω*, *ἐ-ρέχ-θω* ('Gk. Verb' p. 503), with which Fick i³. 742 and the 'Pet. Dict.' aptly compare the Ved. *rikh* 'tear up,' while Froehde 'Ztschr.' xxii. 264 adds also the Lat. *rī-ma* 'chink' (Van. 808), *ἐρείπ-ω*, which at No. 513 was put with *ῥίπτω*, *ἐ-ρυθ-ρό-ς* (No. 306) and perhaps that of *ἔ-ρεβ-ος* (p. 480), the *ὀ* of *ὀ-ρυγ-μό-ς* by *ὠ-ρυγ-ή* (No. 508), the *ὠ* of *ὠ-ρυ-ω* (No. 523) by *ὀ-ρύ-ε-ται*. — Before λ there appears a prothetic *ἀ* perhaps in *ἀ-λέγ-ω* (No. 538), certainly in *ἀ-λείφ-ω* (No. 340), as also in *ἀ-λί-ν-ειν* (*ἀλείφειν* Hesych.), which is akin to the Lat. *li-n-e-re* and belongs to the forms dis-

[1] Froehde 'Ztschr.' xxii. 263 says truly: 'Among the Greek words beginning with ρ, of those whose etymology is clear there are only a few which had this initial from the beginning, i. e. *ῥάπ-υς* (No. 511), *ῥίζω* 'dye' (No. 154).' — The hitherto unexplained *ἐ-ρεῖδ-ω* Fr. with great probability compares with the Lat. *rid-i-ca* 'vine-prop.'

cussed under No. 541, and in *ἀ-λώπηξ* (No. 525.) — The root of *ἐ-λαύν-ω* (from *ἐ-λα-νυ-ω*, cp. p. 682) comes near to the *la* of the Lat. *lāmina* (Pott ii[1]. 167). The application of *ἐλαύνειν* to the working of metals is as early as Homer. But at No. 529 and on p. 551 we saw the root to be *ἐλ*. — There is, however, a clearer case of prothesis of *ἐ* in *ἐ-λαχ-ύ-ς* (No. 168) with the perhaps related (p. 483) *ἐ-λαφ-ρό-ς*, and of *ὀ* in *ὀ-λίγ-ο-ς* (No. 553), *ὀ-λόπ-τ-ω* (Hesych.) by the side of *λέπ-ω* 'shell,' perhaps in *Ὀ-λυμπ-ο-ς* with an Aeolic *υ*, if *λαμπ* (No. 339) is the root. — Before *ν ἀ* introduces itself in the same way in *ἀ-νήρ* (No. 422), *ἐ* in *ἐν-νέα* (No. 427), in the latter attended by a peculiar doubling of the nasal; before *μ* we assume a prothetic *ἀ* in *ἀ-μα-λό-ς* as in the related *ἀ-βληχ-ρό-ς* (No. 457) and *ἀ-μβλ-ύ-ς* for *ἀ-μλ-ύ-ς*, in *ἀ-μαρ-ύσσ-ειν* 'flicker,' from the same rt. *μαρ*, which occurs reduplicated in *μαρ-μαίρ-ω*, *μάρ-μαρ-ο-ς*, *μαρμαρ-υγ-ή* (p. 567), in *ἀ-μαλδ-ύν-ω* (No. 457) in *ἀ-μείβ-ω* and *ἀ-μεύ-ω* (No. 450), in *ἀ-μέλγ-ω* (No. 150), *ἀ-μέργ-ω* (No. 151), *ἀ-μύ-ν-ω* (No. 451), perhaps in *ἀ-μύσσω* discussed on p. 546; *ἐ* in the pronominal stem *ἐ-μέ* by the side of *μέ* (No. 460), with which may be compared the ModGk. *ἐσύ* = *σύ* (Mullach 'Gr. Vulgarspr.' p. 182); there is, however, the possibility here that *ἐ* is a
725 shortened reduplication-syllable[1]; *ὀ* in *ὀ-μιχ-έ-ω*, *ὀ-μίχ-λη* (No. 175), though, as *ἀ-μῖξαι* (Hesych.) shows, it is sometimes replaced by *ἀ*, in *ὄ-νομα*, the initial of which was discussed at No. 446. Fick i[3]. 125 connects *ὄ-νο-μαι* 'revile' with the Zd. *nad* 'despise,' with a by-form *nid* for *ὄ-νειδ-ος*, *ὀ-νί-νη-μι* 'benefit' with the Skt. *nand* 'rejoice' (causal *nandájā-mi* 'made glad'). We should have to suppose loss of *δ* for both verbs. The middle use, e.g. in *ὀνήσεαι*, *ὀνήμενος* and that of *ὄνησις* suit the derivation from this root, which is represented in Lith. by *naud-à* 'gain,' 'produce,' 'goods,' in Goth. by *niut-an* 'enjoy,' 'benefit,' also with a *u*-sound. In the German *geniessen* 'enjoy' and *nutzen* 'benefit' we find the two main meanings of this root again represented by words of similar sound. *νήδ-υ-μο-ς* the much discussed epithet of sleep in Homer has often been connected with the rt. *nand*;

[1] Windisch denies both and regards *ἐμε* as identical with the Skt. *áma* 'this' (cp. *amá* 'at home,' *amát* 'from the neighbourhood').

this is probable, and the word would thus mean 'cheering.' There are difficulties, however, presented by *ὄνειαρ*, the *ι* of which has not been explained (cp. on No. 279). For this reason I am still doubtful about it. Gust. Meyer 'Praesensst.' p. 42 and Leo Meyer ('Ztschr.' xxiii. 58) start from the rt. *van* (Goth. *vun-an*) 'rejoice.' In that case there would be no prothesis. — On the subject of prothetic vowels before a digamma we need only refer to p. 578[1].

It cannot altogether be denied, however, that prothesis occurred before explosives as well. We regarded it as certain in *ἀ-κινάγ-ματα* (p. 490) the intermediate form between the rt. κι and *τινάσσω*, doubtful in *ἀκούω* (No. 64). In the case of *ὀ-κέλλω*, mentioned under No. 48 and almost synonymous with *κέλλ-ω*, it is conceiveable that the vowel arose from the prep. *ἀνά* transformed in Aeolic fashion to *ὀν*. — Before *γ* prothesis of an *ἀ* seemed to us probable in *ἀ-γαυ-ό-ς* and the related words (No. 122), while we explained the *ε* of *ἐ-ϝερ* (No. 139) to be a mutilated reduplication. Whether *ὀχεά*, *ὀχεή* 'hollow,' which occurs in the Alexandrian writers, is really, as old etymologists supposed, the same word as *χειά* (No. 179), may be left uncertain. — But before *δ* prothesis can hardly be denied in *ἀ-δαγ-μό-ς* 'itching' along with the verb *ἀ-δαξ-έ-ω* by the side of *ὀ-δάξ-ω*, *ὀ-δαξ-έ-ω*, the relationship of which to the rt. δακ (No. 9) is confirmed by the glosses in Hesychius *ὀδάξει· τοῖς ὀδοῦσι δάκνει*, *ὀδαξησμός· τρισμὸς ὀδόντων* (cp. p. 64). In *ὀ-δάξ* 'mordicus' also the primary meaning of the root is evident. — The same assumption is made by Schleicher ('Compend.[3]' 77) for *ὀδούς* (Aeol. plur. *ἔδοντ-ες*). We put the word under the rt. ἐδ at No. 289. — We may probably place in the same list *ὀ-δύρ-ομαι* by the side of *δύρομαι*, *πάν-δυρ-τος* (trag.). — The grammarians quote 726
ἄδορο-ς in the sense of 'leathern bottle' (*δορό-ς*) from Antimachus. Pott ii[2]. 394 is wrong in saying that Suidas takes the word to mean 'untanned.' On the contrary Suidas himself mentions the meaning *κώρυκος*, and the added *ἄδορον· τὸ ἀνέκδαρτον* does not mean 'untanned' (*ἀδέψητος*) but 'not taken off.' In such an isolated word I regard the origin of

[1] To these may be added *ἄ-εμμα· ἱμάτιον* Hesych. from the rt. *ϝες* (No. 565, Knös 104).

the vowel in the preposition *ἀπό*, which well suits the meaning, as not impossible. Compare the Cyprian compounds with *ἰ* = *ὑπό* given on p. 718. — It is not yet clear what is the relation between *ἐ-θέλ-ω* (the only form in Homer) and *θέλ-ω*, since we do not know what the root of the word is. The most probable of the conjectures about it is that of Pott ii². 401, W. ii. 1 339 (cp. Fulda 'Untersuch. üb. homer. Sprache' i. 237, Fick i³. 633), that ἐθελ corresponds to the Skt. *dhar* 'hold' in the sense of 'sustinere,' 'hold to,' 'attach oneself to' something. The Skt. *dhar*, acc. to the 'Pet. Dict.' means, with a dat. or acc. of the thing, or with the inf., 'undertake,' 'begin,' the part. *dhṛ-tá-s* 'ready.' And *ἐθέλειν* as opposed to *βούλεσθαι* does denote a fixed determination (cp. *Φ* 177). In that case here too the *ἐ*, unless it is the remnant of a reduplication, would be simply prothetic. — *ὀβελό-ς* (cp. p. 483) is of too obscure etymology to allow of an opinion about the *ὀ*.

We see from this review of the subject that *τ*, *π*, and *φ* are not numbered among the consonants before which this phenomenon appears, these letters being very common and favourite initials. But prothesis is in general extremely rare before explosives, for which reason we may have somewhat to reduce the list just given[1]. To take refuge in the view that such vowels are the remains of mutilated prepositions seems to me allowable only when this is rendered probable in some individual instance both by sound and meaning. In general apocope of disyllabic prepositions is confined to Aeolic and Epic Greek. We see too from the care with which the nasal of the prep. *ἐν* is preserved how reluctant the language was as a rule to neglect the principle of intelligibility in formations of this nature.

2. Evolution of a Vowel within the word.

That vowels have been inserted is also an assumption which the comparative study of languages makes us slow

[1] Brugman 'Stud.' vii. 214 prefers, in a number of the cases given above, to regard the vowel as a mutilated reduplication. But it is very rare to find *a* and *o* used in forms where reduplication is established.

to accept. But it is impossible to deny the fact altogether. Pott ii[1]. 223 has discussed a number of undoubted cases from 727
various languages, Heyse ('System der Sprachwissenschaft' p. 220), Leo Meyer i. 221 and again 274 give shorter collections. The subject is discussed at greater length by Walter 'Ztschr.' xi. 428, xii. 375, 401 ('Vocaleinschiebung im Griechischen'). Lobeck in his treatise 'De parectasi' ('Elementa' i. 403) has investigated much that belongs here from a purely Greek point of view. The most exhaustive treatment is now that above mentioned by Joh. Schmidt 'Voc.' ii., particularly p. 307 ff. where vowel-evolution is brought into close connexion with vowel-lengthening[1]. In the case of insertion there is less relaxation than in that of prothesis of the rule that the phenomenon occurs only in the neighbourhood of *r*, *l*, *n*, *m*. Properly speaking insertion, as we saw, is a further unfolding of the 'voice' which is heard in the so-called sonant sounds, and which also generated prothetic vowels before them. To the same source is due the frequency of metathesis in the case of the same sounds, and the fact that in some languages it is possible for *r* and *l* themselves to be regarded as vowels. Hence too the insertion of a short *e* after *r* which has to a large extent become a rule in Zend: *hvare* 'sun' = Skt. *svar*, *dadareça* = Skt. *dadárça*, Gk. *δέδορκα* (Bopp 'Vgl. Gr.' i[2]. 55), and it is a fact connected with this that a Skt. *ṛ* is represented as a rule in Zend by *ere*, which latter group of sounds Justi p. 357 actually gives as a vowel, lengthened into *are* and further into *âre*. As instances of the anaptyxis that is not uncommon in modern Greek we may take *δραχumi* = *δραχμή*, *Πάτιμος* = *Πάτμος*. Numerous analogies for Greek are to be met with in the Italian languages. The most consistent is Oscan, as Kirchhoff 'Ztschr.' i. 36 ff. shows in his excellent essay 'Vocaleinfügung im Oskischen.' We need here only refer

[1] There has just appeared Fick's essay 'Schwa indogermanicum' in Bezzenb. 'Beitr.' iii. 157 ff., which traverses ground contiguous to this. Still the author distinguishes between his 'schwa' and a 'fractional vowel' ('*Theilvocal*'). Here too we find discussed from a different point of view much that we have treated above p. 710 ff. under the head of vowel change,—whether profitably or not I leave others to decide.

to forms like *Al-a-faternom* = *Alfaternorum*, *ar-a-getud* — *argento*. Kirchhoff shows that Oscan, in these cases of real insertion, assimilates the inserted vowel to the preceding one, while in another class of forms, in which the moveable vowel sometimes assumes a privileged position, e. g. in *piu-terei*
728 by the side of *piu-turu-s* = πότερο-ς, the influence of the following syllable is to be traced, and that with a consistency greater than that which we discovered on p. 721 in the case of prothetic vowels in Greek. Kirchhoff gives a copious selection of analogous processes from Old-High-German, like *al-a-h* = Goth. *alh-s*, *pur-u-c* = Goth. *baúrg-s*, *far-a-h* = Lat. *porc-u-s* (No. 104). From the corresponding later forms we perceive that such vowels come to the surface and disappear periodically in the history of language. On the tendency of Old-Latin to assist the pronunciation of unusual groups of consonants by means of inserted vowels, we may refer to forms like *Aesc-u-lapiu-s* = Ἀσκληπιό-ς, *Proc-i-na* = Πρόκνη and to the full discussions of Ritschl 'Opuscula' ii. 469 ff. and Corssen i[1]. 253, 258, ii[2]. 77 f., and on similar insertions in Irish to Windisch 'Kurzgef. Ir. Gr.' § 78.

The vowels most frequently used for this purpose in Greek were α and ε, more rarely ο and ι, and most rarely of all υ. The following are certain instances of insertion. In drawing up the list no distinction has been made between cases in which the insertion can be established by the comparison of other Greek forms and those which only betray it when compared with words taken from other languages. It is moreover not always possible to decide which was the original position of the vowel. — Either before or after ρ there appears an inserted vowel in ἀρ-α-βύλας (Hesych.) by the side of ἀρβύλαι· γένος ὑποδημάτων probably from the same stem as ἀρπ-ῖδ-ες, used in a like meaning by Callim. ('E. M.' 148, 39), and accordingly belonging to ἁρ-π (No. 488), ἀρ-ά-χ-νη compared with ἄρκ-υ-ς (No. 489 and p. 502), ἀρηνο-βοσκό-ς (also ἀρενοβοσκός[1] and

[1] On ἀρενοβοσκός in Hesych. doubt is thrown by its place in the alphabetical arrangement. The form with the long vowel is stated by the same authority to have stood in Sophocles 'Tyro' with the variant ἐρρηνοβοσκός. Nauck 'Philol.' vi. 389 quotes from Eustathius p. 799, 36 a fourth form ἐρενοβοσκός but does not believe in any of the four.

ἐρρηνοβοσκός), where in accordance with the views expressed under No. 496 we must hold either the first or the second vowel to be of later developement, Ἀρ-ε-πυῖαι by the side of Ἄρπυιαι ('E. M.') cp. No. 331, ἀρ-έ-τησαν· ἥρμοσαν, with which too should be compared ἀρ-ε-τή and other forms mentioned under No. 488, ἀρ-ι-θ-μό-ς and νήρ-ι-το-ς belonging to the same root, and ἀρ-ι-μάζει = ἀρ-μόζει (Hesych.), β-ά-ραγχο-ς given in the 'E. M.' from Hipponax and βαραγχιᾶν mentioned as a common Attic by-form of βραγχιᾶν 'to be hoarse' (Lobeck 'El.' i. 404), to which too belongs βαράγχια· τὰ βράγχια τῶν ἰχθύων, βαρραχεῖν· ἠχεῖν, σκιρτᾶν (Hesych.) with doubled ρ (cp. ἐννέα), in its first meaning not to be separated from βραχεῖν, δ-ά-ρυλλο-ς Macedonian for δρῦ-ς and given along with it under No. 275, ἐρ-έ-β-ινθο-ς and 729
ὄρ-ο-βο-ς (No. 494) by the side of *er-vu-m* and the OHG. *ar-a-weiz* also with an added vowel. Perhaps too the Cretan Ῥαβίνθιο-ς, the name of a month, belongs to the same root (Ahrens 'Rhein. Mus.' xvii. 351). ἐρ-ε-τ-μό-ς we referred under No. 492 to a rt. ἐρ; θ-ό-ρυ-βο-ς was connected under No. 317 with θρῦ-λο-ς; κ-ά-ρραξον· Πάφιοι κράξον (Hesych.) bears exactly the same relation to κράξον that βαρραχεῖν does to βραχεῖν, and on this account M. Schmidt is certainly wrong in suspecting the word. ὀρ-έ-γ-ω stands by the side of the Skt. *arj*, ὀρ-ό-γ-υια by the side of ὀργ-υιά (No. 153). On ὀρώρ-ε-ται I may now refer to 'Gk. Verb' p. 417. To the same root again (No. 500) belongs ὀρ-ο-θ-ύν-ω; and if we compare ὀρ-ῖ-ν-ω with ὄρ-νυ-μι it seems natural to explain the ι to be a vowel, the lengthening of which is only compensatory. ὀρ-ῖ-νω comes either from ὀρ-ι-νjω (cp. βαίνω) or from ὀρ-ι-νυω (cp. τῖ-νω by the side of τινύω). σκάρ-ῑ-φο-ς by the side of σκαρφ-ίον and κάρφ-ιον and κάρφ-ο-ς were mentioned on p. 694, στέρ-ι-φο-ς at No. 222; the relation is precisely the same between the common form τάρ-ι-χο-ς 'salt meat,' whence ταρ-ι-χ-εύ-ω, and ταρχ-ύ-ω (Lobeck 'El.' i. 463), which belong no doubt to the rt. τερς (No. 241) 'to dry,' and have lost one ρ assimilated from σ. In ταράσσω too ('Gk. Verb' p. 222) the vowel has passed into general use, though it is wanting in the noun τάρχη, τάραξις, while θράσσω, τέτρηχ-α are due to syncope (Joh. Schmidt 'Voc.' ii. 314). At p. 100 he refers

τάρ-ι-χο-ς to the rt. θαρχ = Teut. *drug* ('dry'). Still the ι is anaptyptic all the same, so too, probably, in ἐρείκη 'heath,' 'heather.' The word corresponds strikingly with the OIr. *froech* f. 'heath,' 'heather,' primary form **vraikā*. Apparently we must assume a Gk. ϝερείκη. Cp. Windisch 'Stud.' vii. 379, Stokes 'Beitr.' viii. 351. The Tarentine τορ-ό-νο-ς = τόρνο-ς 'circle' (Hesych.) belongs to a class of similar formations which were mentioned with τέρ-ε-τρο-ν under No. 239. Completely analogous is the Aeol. φερ-έ-να, or, as Lehrs on Herod. 'π. μον. λεξ.' 33, 30 writes, φέρ-ε-να for φερ-νή 'dowry' (No. 411). — Before ρ a similar ε is produced in the Aeol. μέτ-ερρο-ς = μέτρ-ιο-ς, Πέρραμο-ς = Πρίαμο-ς (Ahrens 55), in *οἰκτερο-ς, which is to be deduced from οἰκτείρω (by the Old Attic οἰκτίρας), α in *ἐχθ-α-ρο-ς to be deduced from ἐχθαίρω ('Gk. Verb' p. 255).

Before or after λ we find an inserted vowel almost as often. Here belong ἀλ-ε-γεινό-ς and δυσ-ηλεγ-ής 'hard,' Schaper 'Ztschr.' xxii. 515 by ἄλγ-ος 'pain,' a word of obscure origin, since it is very doubtful whether it is related to ἀλέγ-ω, discussed under No. 538, and not more than possible that it is related to the Lat. *alg-or*, *alg-us* (cp. τὸ δέ τοι καὶ ῥίγιον ἔσται and Fulda 'Untersuch.' i. 221), and also rt. ἀλ-ε-ξ (No. 7) by the side of ἀλκ and the Skt. *raksh* along with the related ἀρ-ή-γ-ω, referred to also on p. 533. Perhaps too ἀλ-ι-κίνο-ς· δυνατός in Hesych. belongs here; it seems to be a mistake for ἀλ-ί-κιμο-ς, i. e. ἄλκ-ι-μο-ς. ἀλ-ω-φό-ς· λευκός according to Hesych. and its compound ἀλωπόχρους are rightly explained by Savelsberg 'Rhein. Mus.' xxiii. 384 to be from ἀλ-φό-ς (No. 399), and he points out a similar insertion in
730 the Osc. *Al-a-faterna*. The long vowel is as in ἀρήγω, σκάρῑ-φο-ς. Further with Lobeck 'El.' i. 31 we may add ἀστέλ-ε-φος· τὸ περὶ τὴν κιθάραν δέρμα (Hesych.) by the side of στέρφ-ος 'skin,' and here we should also have to suppose the initial vowel to be of later date and ρ and λ to have been interchanged. ἐν-δελεχ-ής and δολιχ-ό-ς with the Skt. *dīrghá-s* have been discussed under No. 167, δάγκ-ο-λο-ν on p. 621. We treated of the relation of ἡλ-α-κ-άτη to the rt. ἀρκ under No. 489, that of ἥλ-υ-θ-ο-ν to the rt. ἐλ = ἐρ on p. 556, ἐρ-υ-ς (ἐρύω) by the side of ϝερ-ς at No. 497 b, that of ἥλ-ι-τ-ο-ν,

ἠλ-ί-θ-ιο-ς to the rt. ἀλ on p. 557. κ-έ-λαδ-ο-ς 'noise' and κελαδεῖν are compared, perhaps rightly, by Fick i³. 541 with the Skt. *krad*, *krand* roar, 'neigh,' 'bellow.' κολ-ε-κ-άνο-ς, κολ-ο-κ-άνο-ς, κολ-ο-σσό-ς come, as was shown under No. 67, from a st. *kark*, μαλ-α-κό-ς is, as we saw under No. 457, the softer form for Hesychius's μαλκό-ς. The *o* of μ-ό-λυβο-ς and the related forms was seen under No. 552 to be inserted. παλάσσω 'sprinkle' comes from a primary form παλ-α-κ richer by a vowel than the related περκ (No. 359 b). The same origin was conjectured under No. 367 for the ε of πέλαγ-ος. It is clear that insertion has taken place in the forms πέλ-ε-κ-υ-ς (No. 98), which agrees remarkably with the Skt. *para-çú-s*, Hom. ἀ-π-έ-λε-θρο-ς 'immeasurable' and π-έ-λε-θρ-ον by the side of πλέ-θρο-ν (No. 366), and in σκάλοψ, σπάλαξ, ἀσπάλαξ (No. 106). Aristoph. said Τελ-ε-μησσῆς (Meineke 'Com.' ii. p. 1159) instead of Τελμησσεῖς, τολ-ύ-π-η 'clue' we regarded as an expansion of the rt. ταλ (No. 236) by means of a determinative π, χ-ά-λαζα was discussed under No. 181, ψηλ-α-φ-ά-ω 'feel' is connected, probably rightly, with the rt. ψαλ ψάλλειν by Walter 'Ztschr.' xii. 406, who also compares the Lat. *pal-p-are*; perhaps the original form of the root was *spal*, and we might even imagine a connexion with the OHG. *spil-ô-n*. In this way we should be brought to a connexion with No. 389.

Far smaller is the number of words of this class that have a nasal in their stem. In the case of ἄν-ε-μο-ς (No. 419) the comparison of the Indian verbal form *án-i-mi* is important, in ἄφ-ε-νος by the side of ἀφνειός (p. 510) the φ points to a time when the labial stood immediately before the ν. Still we may compare τέμ-ενος (No. 237) and the Lat. *fac-inus*. How the ε of ἄν-ε-μο-ς is related to the α of πλόκ-α-μο-ς, ποτ-α-μό-ς cannot be decided without a comprehensive investigation into such internal vowels in the formation of stems. In ἀν-ήνο-θε, ἐν-ήνο-θε (No. 304) the vowel takes its place between the primitive root and the root determinative, as in ἤλυ-θ-ο-ν, as too in καν-α-χ-ή, κόν-α-βο-ς (rt. καν No. 32). The vowel has however made its way into the root itself in κ-ο-νί-ς 'nits' (No. 285) from the rt. *knid*, in ὀν-υ-χ from the rt. 731
angh (No. 447), in π-ι-νυ-τό-ς from the rt. πνυ (No. 370), a

long vowel (cp. σκάφ-ῑ-φο-ς) in σκ-η-νίπ-τειν, διασκηνίπτειν 'to hug the wind,' which Lobeck 'Path.' 432 is no doubt right in connecting with σκνιπός whose initial is discussed on p. 703. — τέμ-α-χ-ος, with which Walter aptly compares μίαχος (μίασμα Hesych., No. 237), comes, along with τμή-γ-ω, softened from τμη-κ-ω, from a rt. τμα-κ expanded by a κ, and so the α stands here too as a mediatory vowel. We may finally class here Τμάρο-ς and Τμῶλο-ς, names of mountains in Thesprotia and Lydia, which have the by-forms Τ-ό-μαρο-ς and Τ-ύ-μωλο-ς (Lobeck 477).

Throughout the whole of our extensive investigations we have made a point of bringing into prominence the persistent tendency which, in spite of the multiplicity and variety of phonetic change, pervades the whole history of language, and puts it within our power to establish definite relations between the sounds of Greek and those of the related languages. Not only in the regular substitution of sounds, which we dealt with in the second book as the main and fundamental law of the Greek language, but also in the isolated exceptions to this law which we had to notice in the third book, we recognized at p. 409 one and the same *fundamental tendency*, that of '*weathering away*,' which on closer inspection was found to consist in a decrease of energy in the attempt to pronounce certain sounds. But alongside of those phonetic transformations which, like softening, dulling, and complete loss of sounds, were the simplest result of the above-mentioned fundamental tendency, and on this account admitted of being regarded as normal, we found others besides, which at first looked abnormal, and inconsistent with this tendency. First among these comes the *reciprocal influence* of sounds on each other, owing to which, inasmuch as the stronger sound occasionally assimilated the weaker more or less to itself, there certainly arose the possibility of a strengthening as well. But a strengthening of this kind, if closely examined, is only apparent, since it is due to the inability to produce completely the particular sound originally intended, owing to the difficulties caused by the neighbouring sounds. To the same class belongs further the birth of the subsidiary or parasitic sounds. Since a really strong articulation excludes these subsidiary sounds, this process too depends on a certain relaxation of the vocal organs. As we have arranged the matter of our investigation according to the separate sounds, I will take the opportunity of giving here, at the conclusion, a comprehensive *resumé* of the whole, from the points of view

just discussed. Ludwig Lange (now my valued colleague)[1], in his review of the first edition of this work ('Ztschr. f. d.
783 österr. Gymn.' 1863 p. 295) justly pointed out the want of a general survey, and drew up one of his own which I here adopt in many of its items. The regular sound-changes (Bk. ii.) will be found in spaced, the sporadic (Bk. iii.) in ordinary type.

I. Normal change of sound.

A. Relaxation of articulation.

1. Weakening of the tenuis to the medial p. 533.
2. Dulling of harsh groups of consonants p. 691 f.
3. Substitution of the hard aspirate for the more difficult soft one p. 424.
4. Change of *m* into *n* and the reverse p. 543.
5. Change of *r* to *l* p. 547.
6. Change of *s* into *h* before vowels pp. 375, 392, 412 f.
7. Change of *j* into *h* p. 396.
8. Change of *v* into *h* p. 413.
9. Interchange of the sharp and weak breathings pp. 682 ff.
10. Change of *v* into *υ*, *ο*, *ω* pp. 563 ff.
11. Change of *j* into *ι* or *ε* pp. 606 ff.
12. Dulling of *α* into *ε* and *ο* p. 90.
13. Weakening of *α* into *ι* pp. 711 ff.
14. Weakening of *α* into *υ* pp. 713 ff.
15. Weakening of *υ* into *ι* pp. 716 ff.

B. Complete loss of sounds.

1. Loss of a consonant pp. 429 ff., 692.
2. Dropping of the breathing pp. 524 ff.
3. Loss of *s*, *v*, *j* pp. 94, 416.
4. Disappearance of a nasal pp. 53, 531.
5. Loss of a vowel pp. 45, 572.

II. Abnormal change of sound.

A. Through the influence of neighbouring sounds.

1. Hardening of *F* to *β* p. 583.
2. Hardening of *F* to *φ* p. 600.

[1] [Dr. L. Lange's death followed within a fortnight that of the author of this work in the early autumn of this year, 1885.]

3. Change of *F* to *μ* pp. 589 ff.
4. Change of *F* to *ρ* p. 455.
5. Hardening of *j* to *γ* pp. 612 ff.
6. Assimilation of *λj*, *ρj*, *νj* to *λλ*, *ρρ*, *νν* p. 664.
7. Change of *τj*, *θj*, *κj*, *χj* to *σσ* (*ττ*) pp. 665 ff.
8. Change of *δj*, *γj* to *ζ* or *δδ* pp. 669 ff.
9. Change of *πj* into *ττ* pp. 497, 676 ff. 734
10. Change of *χj* into *χθ* pp. 499, 675 ff.
11. Change of *λ* into *ν* p. 450.
12. Change of *σ* into *ρ* p. 452.
13. Metathesis pp. 653, 678 ff.
14. Dissimilation of various kinds pp. 706 ff.

B. Through the generation of parasitic sounds.

1. Change of *k*, *g*, *gh* into *kv*, *gv*, *ghv*, and further into *π*, *β*, *φ* (Labialism) p. 456.
2. Change of *k* and *g* into *kj*, *gj*, and further into *τ*, *δ* (Dentalism) p. 485.
3. Change of *v* into *gv*, and further into *γ* pp. 442, 596.
4. Change of *j* into *dj*, and further into *dz* (*ζ*) and *δ* pp. 623 ff.
5. Production of a *j* after other consonants pp. 497, 661 ff.
6. Aspiration of an unaspirated explosive p. 500.
7. Production of auxiliary vowels pp. 578, 718 ff.
8. Production of auxiliary consonants p. 719.

The following may be taken as a summary of the leading principles which should guide the etymologist.

1. Etymology seeks to arrive at the primary idea of a word, and proceeds by a continual abstraction of formal elements which express relation, until it finds the ultimate agglomeration of sounds.

2. These ultimate significant agglomerations of sounds, the formless matter of speech as it were, we call roots. We assign a real existence to roots, assuming that before the developement of the formal element in language roots were the real words of language, and that even in a later stage

the root presented itself more or less clearly as the common kernel of many connected words, to the consciousness of those who used them.

3. Inasmuch as we can distinguish sounds of various kinds, added to these roots, which, though by no means firmly attached, still do not belong to the formal elements of language, we make a distinction for the family of languages with which we have to deal, between *primary* roots, i. e. such as have no such added sounds, e. g. *ju*, and *secondary* ones expanded by these same elements, e. g. *judh*. These amplificatory sounds, which limit the meaning of the root and thus define it more sharply, we call *root-determinatives*, e. g. the *dh* in *judh*. The expansion of primary roots by determinatives falls for the most part into an early period of language.

735 4. The highest and last task for the etymologist, the tracing of the whole of the words of a language to their roots, can only approximately be fulfilled, and necessitates various preliminary labours. There is no mistake which entails a heavier penalty upon the etymologist than too great haste in referring a word to its root.

5. One of the most indispensable preliminaries for the discovery of roots is the comparison of the words of a language with those whose relationship to them can be established by sound and by meaning. This process is as it were the marshalling of our troops.

6. In marshalling thus our array we must not limit ourselves in the case of the Indo-Germanic languages to a single language. As it has been proved that these languages possessed before their separation a multitude of words, stamped with definite individuality of sound and meaning, the family history of the several languages extends back to the time when no separation had as yet taken place. In marshalling Greek words then each word must be classed with those words, both in Greek itself and in the cognate languages, which a careful balancing of probability shows to be related to it.

7. As the result of this comparison we attain to the Indo-Germanic *primary form* of a word, and in many cases to the root, which is common to the different languages, and to which each of them has given a special form. This com-

parison however possesses a value of its own apart from the attainment of this last result (cp. p. 80).

8. Relationship is established between words in a language or in kindred languages when their *sounds* and their *meaning* can be shown by direct evidence or demonstrable analogies to be equivalent.

9. The sounds of a language stand to those of the related languages in a relation *which can be accurately determined.* Greek sounds especially are subject to phonetic laws and tendencies, and attention to these is the first and inviolable rule in all attempts at etymology.

10. It is in many cases more difficult to determine the course of the change of *meaning*. Still we have found some guiding analogies and certain courses of language even here. First of all it is clear that language always started from definite perceptions, not from vague generalities, and that the mental power which forged man's speech comes nearer to the poet's fancy than to the logician's abstraction. For the rest, the science of etymology is still in the experimental stage as regards the transition of meaning. For the 736
present at any rate what we have to rely on mainly here, as in the greatly similar case of textual criticism, is a judgement formed by the devoted study of richly developed languages, and in the case of Greek etymology on intimate acquaintance with Greek and its nearest kin Latin. This is a part of linguistic investigation which Classical Philology can least of all afford to hand over to the general or comparative science of language. — The only course open to the individual investigator, in respect to such languages as he has not mastered in the same degree, is to rely on the most trustworthy statements of others. The German however has a specially fruitful field open to him in the usages of his own rich language, with which he is personally and directly familiar.

11. It is of great importance that, in dealing with the meaning of words, what is actual should be distinguished from what is merely conjectural. That λύκο-ς and *lupu-s* both mean 'wolf' is a fact, which, considering the near relationship of the two languages, proved for us in other ways, is an argument of much weight for the original identity

of the two words. As to the primary idea to be attached to the word we have only conjectures. The etymologist must be very careful not to set down an idea, which at most *might* be the fundamental meaning of the word, for that which actually *was* its fundamental meaning.

12. A conjectural primary idea or meaning — in the example above given 'shining one' — must *not* be received if it is derived from the *one language alone*, but only if it suits all the words, whether in that, or in related languages, which a sound method of investigation shows to be connected — and in the example given this is *not* the case.

13. Actual substantial agreement in meaning, that is, in the object denoted by the words, warrants us, in case a strict examination shows the sounds to agree, in pronouncing words of related languages or dialects to be related, in this instance λύκο-ς to be related to the Skt. *vṛ́ka-s*, ChSl. *vlŭkŭ*. Whether or not we arrive at once, or arrive at all, at an etymon as the result of this comparison is a question by which the comparison itself is not affected in the least.

14. For this very reason words of a clear stamp, which denote external objects, in so far as the *one* point — their actual meaning — is clearly determined, are better adapted to be the foundation for difficult phonetic investigation, than roots and words of a more metaphysical character, which on this account are harder to grasp and may be suspected of coming from a different source.

15. In these questions we must meanwhile never lose sight
737 of the fact, that language *may* have arrived by very different ways at the name for an object, and for this reason, in cases where the sounds admit of combination with more than one other family of words, the connexion of two words is very often the result of much consideration, and the choice lies between various rival possibilities.

16. We can here always find in what is evident some help to the decision of what is doubtful. Hence it becomes possible, particularly according to the verdict of *Analogy*, to get the vocabulary of a language gradually into order, and to put each word side by side with its kin in the related languages. For the explanation of proper names, whose meaning does not at

once strike the reader, we have more than ordinary need of the analogy of definite, unmistakeable, and soundly analysed words.

17. All Etymology must start from the recognition of the fact that language was *rich* and developed in manifold ways at a very early period. Hence it is as foolish to assume a scanty provision of primitive sounds as to suppose that there were only a limited number of primitive ideas or but a small circle of primitive suffixes. We should therefore do far more wisely in doubtful cases to leave asunder provisionally what possibly has no connexion, than to be in too great a hurry to connect words on account of a slight resemblance.

We conclude with the saying of Epicharmus, which every etymologist would do well to lay to heart:

νᾶφε καὶ μέμνασ' ἀπιστεῖν, ἄρθρα ταῦτα τᾶν φρενῶν.

ADDENDUM.

The more noteworthy of the supplementary comparisons of Greek and Keltic words added by Stokes in 'Beitr.' viii. 351 are the following:—

ἄρδις 'point of a stake,' 'prong,' Ir. *aird* 'corner-point.'

γοργός 'vehement,' 'savage,' OIr. *garg* 'fierce' (Windisch. 'Ztschr.' xxi. 395).

ἰσχνός 'dry,' 'lean,' Ir. *sesc*, Cymr. *hysp* 'dry,' 'barren;' also Ir. *sescen* 'bog,' 'moor' (as being barren). Cp. Fick i³. 799, who also connects the Lat. *siccu-s*.

A remarkably isolated word is the OIr. *cinteir* (Sg. 50ᵃ) Armen. *quentr* 'calcar;' it is certainly connected with the Gk. *κέντρον*, and appears to be Old Keltic (for at Z². 781 the *Centrones* are rightly compared), but an original *ent* always became *ét* in Irish (e. g. Ir. *cét* = Lat. *centum*). Stokes starts from a primary *cent-tri*, but it is not clear that this could become *cinteir*. Is there any help to be got from the Vedic *çnath* (*çnathati*, *çnathajati*) 'break through,' 'pierce?' Cp. Fick i³. 546. In that case the Irish *cent-* might be a metathesized *cnet*.

λόγχη, OIr. *laigen* 'lance;' *Laigin* (nom. pl.) the inhabitants of Leinster (Fick ii³. 216).

μάταιος, OIr. *in-made*, *in-madæ* 'sine causa' Z². 609 (*in* is in Old-Irish prefixed to form adverbs).

μέμφομαι, OIr. *mebul* 'disgrace.'

οὐτάω 'wound,' *ὠτειλή* 'wound' (Fick i³. 769) may very well be connected with the OIr. *foth*, acc. pl. *futhu ocus airde cruche* 'stigmata et signa crucis' Z². 1005; it is more doubtful perhaps whether it is also connected with *co fotheasa* Gl. to 'nec hoc dico quo praecessores meos mordeam' Ml. 3ᵃ.

τητάω 'lack' (mentioned under No. 221), OIr. *táid* 'thief,' *táin bó* 'cattle-stealing,' Skt. *tājú-s* 'thief.'

From the second edition of the reprinted 'Remarks,' p. 43, we get the following:—

εὗρον, OIr. *fúar* 'inveni.' It can hardly be right to identify these two forms directly with each other, for the 1st sing. *fúar*, 3rd *fúair*, 3rd pl. *fúaratar* shows the Irish perfect

inflexion. To *fúar* as pret. pass. belongs *frith*, *fofrith* 'inventum est.' The utmost to be got from this is an Irish rt. *far*, i. e. *var*, compounded with *fo* (sub.) *fo-far*, blended in the perf. to *fúar*; the pret. pass. *frith* without the preposition, and *fo-frith* with it contains the weakened root, in which the *ri* would correspond to a Skt. *ṛ*, although on the analogy of *breth* (cp. Skt. *bhṛta*), pret. pass. of *berim* 'I carry,' we should expect *freth*. As to the Gk. *εὑρ-* there is no deciding how we ought to regard it,—possibly, as a 'petrified' *vevr-*.

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